

**Radioactive contamination at the Jana
Elementary School, Hazelwood, MO**

Review of community and USACE radioisotope data

Celeste Brustowicz, Esq.
Cooper Law Firm, L.L.C.
New Orleans, Louisiana

Kevin Thompson, Esq.
Thompson Barney Law Firm, P.L.L.C.
Charleston, West Virginia

Prepared by:
Boston Chemical Data Corp.
Marco Kaltofen, PhD., PE (civil, MA)

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Abstract

U.S. Army Corps of Engineers (“Army Corps”) documents recently obtained by the Missouri Coalition for the Environment through a Freedom of Information Act request reveal the presence of elevated amounts of radionuclides on and under the grounds of the Jana Elementary School in Hazelwood, MO. These radionuclides include isotopes of both radium and thorium. Based upon the elevated values of radium and thorium encountered at the Jana Elementary School, additional testing was performed by Boston Chemical Data Corp. These two sets of results are summarized in this report.

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Qualifications

This report was produced by Marco Kaltofen, PhD., PE (civil, Mass.) President of Boston Chemical Data Corporation. Dr. Kaltofen is an environmental scientist with more than 30 years' experience in environmental, workplace, and product safety investigations. Dr. Kaltofen is the President of Boston Chemical Data Corp., and has a PhD in Civil Engineering, a MS in Environmental Engineering, and a graduate certificate in Nuclear Science & Engineering. Dr. Kaltofen has tracked chemical, petroleum, and radioactive contamination at industrial facilities for more than thirty years. This includes fieldwork and analysis in the United States, Middle East, Russia, India, Japan, Ukraine, the United Kingdom, and the European Union.

Dr. Kaltofen has published articles on environmental quality, fate and transport, including, *Assessing human exposure to contaminants in house dust*, PhD dissertation defended March 12, 2015; published April 9, 2015, as well as *Radioactively-hot Dust Particles in Japan*, (J. Sci. Total Env. 607-608C (2017) pp. 1065-1072) and *Tracking legacy radionuclides in St. Louis, MO via unsupported ^{210}Pb* , (J. Environmental Radioactivity, Accepted Dec. 7, 2015), as well as other articles on environmental contamination.

Selected Lectures and Seminars: International Radioactive Waste trading, Chelyabinsk School of Law, Chelyabinsk Oblast, Russia; State of Contamination, Hanford, WA, University of Washington; Environmental Surveillance after a Major Oil Spill, Tufts University;

Reconstructing the Fukushima Meltdowns, Dartmouth-Thayer School of Engineering, Forensic Examination of Materials from Northern, Japan, President's session of the American Public Health Association; Forensic Nonproliferation Investigations, Massachusetts Institute of Technology, Media Lab; and Art and Science Communication for Nuclear Forensics, LIST Visual Arts Center, Massachusetts Institute of Technology.

Dr. Kaltofen regularly peer-reviews scientific articles on environmental contamination, and peer-reviewed and evaluated major grant proposals for the MacArthur Foundation, and participated, been invited to or chaired multiple federal environmental review panels including the Environmental Protection Agency committee on accreditation of environmental laboratories, the United States Department of Defense advisory panel to the US Army Soldier Systems Command, and nuclear waste treatment evaluation panel at the Hanford Nuclear Reservation.

Dr. Kaltofen has offered expert opinion on matters of contamination and transport of contamination since 1989. Additional experience and training are at "<http://www.bostonvhemicaldata.com/cv.html>" e.g. a current Curriculum Vitae. Some examples of Dr. Kaltofen field engineering work include:

Murphy Oil spill and Hurricane Katrina damage investigation (LA);

BP oil spill Gulf of Mexico and fisheries impact investigation (LA);

Arkema Chemical peroxide chemicals fate & transport investigation (TX);

Henry Hub Natural Gas distribution facility contamination (LA);
Nuclear worker exposures to transuranics at Hanford Nuclear Reservation, (WA), Los Alamos (NM) National Laboratory and Idaho (ID) National Labs;

Analysis of solid phase and airborne formaldehyde in FEMA-trailers (LA, AL);

Iraq, Investigation of oil fire impacts and the use of depleted uranium munitions;

US west coast dusts and soils for the analysis of Fukushima-related radioactive materials;

Former Love Canal area in Niagara Falls, NY for the presence of DDT and other chlorinated pesticides (New York);

Chernobyl Nuclear Power Station in Ukraine for assessing radioactive particulate matter and cesium-137 in animal wastes (Ukraine);

Presence of metallic wastes and former Manhattan Project uranium wastes (St. Louis, MO);

US Army Arsenal, for radiation testing in effluent channels (Watertown, MA);

Acid Canyon, for the assessment of plutonium (Los Alamos, NM);
Yakama Housing Authority isolating radioactive particles from biological materials, and particulate sampling and analysis of uranium & plutonium (Richland, WA and the Yakama Indian Nation);

Chinese dry-wall, sampling and analysis of sulfide compounds in coal ash-amended construction materials, analysis of airborne chemical compounds Louisiana);

Performing an onsite review of radiological monitoring and laboratory procedures for the regional and municipal environmental authorities (Chelyabinsk Oblast, Russia);

Techa River downstream of the Mayak Chemical Nuclear facility, developing sampling strategies for foodchain contaminants including strontium and cesium (Ural Mountains in Russian Central Asia);

Nanda Devi Glacier, determining total alpha & beta emitters in river sediments (India);

Performing gamma spectrometry of sediments by GeLi and NaI detectors, source determination of thorium isotopes in rivers sediments (Richland, WA);

Los Alamos National Laboratory, analyzing of cerium monazites from naturally-occurring materials and from thorium fuel cycle reactors (in Los Alamos, NM);

Sampling & mapping (Fukushima Prefecture, Japan);

British Nuclear Fuels site; animal absorption of contaminants (Cumbria, UK);

Investigation of depleted uranium-contaminated areas (Serb Republic);

US Army Natick, environmental contamination from organic chemicals and chlorinated solvent contamination of drinking water (Natick, MA);

Uranium mining waste sites at the Spokane Tribe of Indians (Wellpinit WA).

In addition to field-work in radiation analyses Dr. Kaltofen has completed academic projects in method development using scanning electron microscopy and energy dispersive X-ray analysis of

radioactive nuclides in residential and industrial dusts. This method is peer-reviewed and published and can be found in Kaltofen, M.P.J., Bergendahl, J. (2010), *Microanalysis of Workplace Dusts from the Mixed Waste Tank Farm of the Hanford Nuclear Reservation*, Environmental Engineering Science 27, 2, 2010; Kaltofen, Alvarez, Hixson (2015) *Tracking legacy radionuclides in St. Louis, MO, via unsupported Pb-210*, J. Environmental Radioactivity, 29 Dec 2015, 153:104-111; and in Kaltofen, M., Gundersen, A. (2017) *Radioactively-hot Particles Detected in Dusts and Soils from Northern Japan by Combination of Gamma Spectrometry, Autoradiography, and SEM/EDS Analysis and Implications in Radiation Risk Assessment*, Science of the Total Environment, Volumes 607–608, 31 December 2017, Pages 1065–1; and in Kaltofen, M., Gundersen, A., Gundersen, M. (2021) *Radioactive Microparticles related to the Woolsey Fire in Simi Valley, CA*, J. Environmental Radioactivity, Dec. 2021, (240) 106755.

Dr. Kaltofen has been found qualified to provide testimony by appearance at trial and by deposition in the areas of chemistry, radioactivity, and environmental engineering. This testimony has been provided in both state and federal courts, including in the United States District Court Southern District of Florida, United States District Court Eastern District of Missouri, in the District Court, 214th Judicial District of Texas, and other courts. A full list is available at: <http://www.bostonchemicaldata.com/cases.html>.

Introduction

The combined activities of dangerous alpha-radiation emitting radionuclides (radium and thorium) on the Jana School site exceed the level of 5 picoCuries per gram (pCi/g) above background for isotopes of radium or thorium as specified in 40 CFR 192. The US Environmental Protection Agency (EPA) notes that a cleanup level of no more than 5 pCi/g above background is the actual health-based clean up level expected when radium and thorium are comingled, according to EPA's "Use of Soil Cleanup Criteria in 40 CFR Part 192 As Remediation Goals for CERCLA Sites" (1988, p. 5).

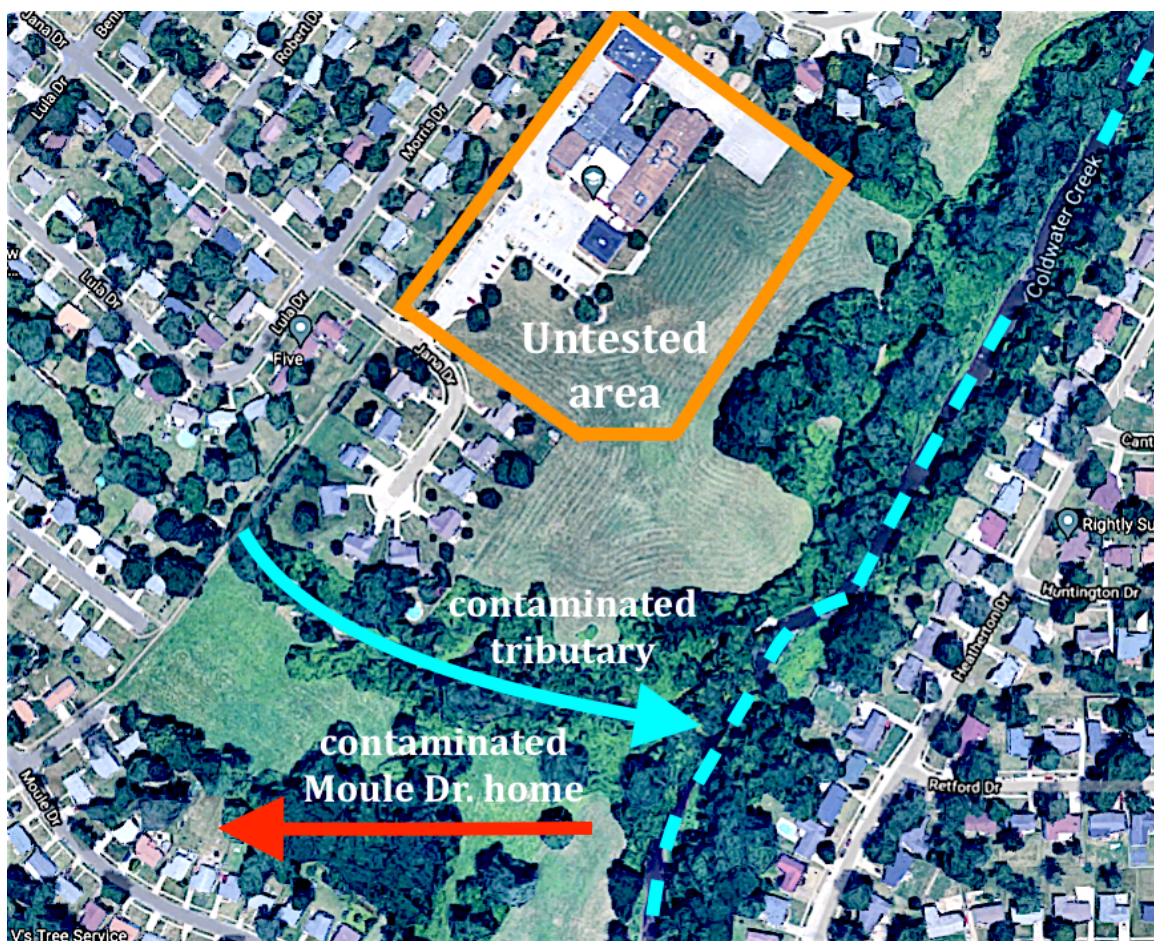
Testing shows the nature of the radioactive material at the school is consistent with the radioactive legacy uranium processing wastes notoriously found in the heavily contaminated Coldwater Creek in North St. Louis County, MO, and in low-lying areas subject to flooding from the creek. Based on data from the US Agency for Toxic Substances and Disease Registry and peer-reviewed scientific literature (ATSDR 2019, Kaltofen 2018) the radioactive waste found at the Jana School matches that found in the St. Louis Airport, HISS, and other radioactively contaminated locations. Most importantly, the radioactive wastes at the Jana School and other North St. Louis County sites are rich in thorium-230, a radioactive isotope that emits highly damaging alpha radiation.

The Jana School property is bordered on two sides by Coldwater

Creek and one of its contaminated tributaries. The property is low-lying in elevation and subject to flooding from Coldwater Creek. The primary isotope found by the Army Corps at the Jana School was thorium-230. Upstream and off of this site along Coldwater Creek, the Army Corps found as much as 178,000 pCi/g of thorium-230 versus a background level of 1.51 pCi/g, so the condition of the school grounds should not be surprising (NUREG CR2722, Table 4).

Army Corps test results show radioactivity well in excess of 5 pCi/g levels determined by the EPA to be protective of human health (10 CFR Part 192). In fact, the Army Corps data shows that surface soils at the Jana School reach 22.60 ± 4.39 pCi/g, and as much as 34.30 ± 6.61 pCi/g in subsurface areas.

The Army Corps' tests are incomplete and inadequate as no samples were collected from the school buildings themselves, nor were they collected from surface soils immediately surrounding the school buildings. It is not possible to assess the risk to students and employees of Jana Elementary because the Army Corps' testing was limited to outdoor soil samples. The Army Corps also failed to sample from areas nearest the actual occupied school buildings.



Above: Map showing Jana School surrounded on two sides by contaminated areas, location of contaminated Moule Drive homes, and untested area closest to the school.

The school staff and students spend the majority of the day indoors yet no indoor samples were collected or tested. The soil samples collected were on portions of the property furthest from the school building. Radioactive contaminants are spread towards the school buildings by creek flooding, nevertheless, all of the Army Corps soil samples were taken at least 300 feet from the school buildings, and thus away from areas most used by children and staff, and away from locations where the greatest number of people would be expected to congregate.

The contamination on Jana School grounds extends from the surface soils to depths as much as six feet below the ground surface. The Army Corps did not test more than six feet below ground, so the true depth of radioactive contamination on the Jana site is unknown. There is no data to determine whether or not radioactive contamination exists below that depth.

Despite these inadequacies, Army Corps data found 84 locations and depths on the school property where thorium-230 was significantly above the expected background of 1.51 pCi/g (reference: 2018 US EPA Record of Decision, Westlake Landfill). The average activity of these 84 samples was 6.18 ± 1.46 pCi/g of thorium-230.

To fully characterize the risk presented by the Defendants' radioactive thorium to residents of the Coldwater Creek area, the U.S. Agency for Toxic Substance Disease Registry (ATSDR) advises interior sampling of structures with contaminated exterior soil like Jana Elementary

(ATSDR 2019).

ATSDR recommends that the FUSRAP program continue investigating and cleaning up Coldwater Creek sediments and floodplain soils to meet regulatory goals. To increase knowledge about contaminant distribution and allay community concerns, we recommend future sampling include

Areas reported to have received soil or sediment moved from the Coldwater Creek floodplain (such as fill used in construction)

Areas with possible soil or sediment deposited by flooding of major residential tributaries to Coldwater Creek

Indoor dust in homes where yards have been cleaned up or require cleanup

Sediment or soil remaining in basements that were directly flooded by Coldwater Creek in the past

ATSDR recommends signs to inform residents and visitors of potential exposure risks in areas around Coldwater Creek not yet investigated or cleaned up.

Engineers and experts that have been studying nearby homes found that indoor samples from creek-facing homes in the neighborhood of the Jana Elementary School had the same types of radioactive materials both indoors and outdoors. In 2019, ATSDR noted that radioactive wastes are routinely moved from Coldwater Creek into homes due to flooding.

“If floodwaters inundated a home’s basement directly, some of the sediment washed inside could possibly contain Th-230 or other radiological contaminants. If Th-230 was present in sediments remaining on walls or floors of a basement, residents could accidentally swallow it or disturb it enough to inhale it. Radiological contamination in and around Coldwater Creek, prior to remediation activities, could have increased the risk of some types of cancer in people who played or lived there. Children and adults who regularly played in or around Coldwater Creek or lived in its floodplain for many years in the past (1960s to 1990s) may have been exposed to radiological contaminants. ATSDR estimated that this exposure could have increased the risk of developing lung cancer, bone cancer, or leukemia.”

One nearby home on Moule Drive was tested and found to be contaminated by these same radioactive wastes. Worse, this same home also had metallic thorium (used in the making of atomic bombs) and cesium-137 (a radioactive isotope associated with nuclear wastes). Indoor dust samples collected from this home were found to be contaminated with thorium-containing radioactive particulate matter (RPM). The most likely source of these radioactive materials is flooding from the creek, which carries contaminated sediments into the house’s basement and surrounding soils.

RPM inside the home had up to 70.4 percent thorium by weight (704,000 ppm). Indoor house dust also contained mercury (3.16 ppm) and cadmium (14.3 ppm). These concentrations for mercury and cadmium are more than ten times the expected level. Radioactive cesium-137 was found at 2.20 ± 1.09 and at 4.71 ± 2.80 pCi/g; more than twenty times the highest background levels found in the area

(Kaltofen 2018 citing Wallo 1994). Indoor dust at the home also had 6.23 ± 0.52 pCi/g of Pb210, compared to the background activity of 2.08 pCi/g (EPA Region 7 Site Background & Current Conditions, <https://semspub.epa.gov/work/07/30337840.pdf>).

The homes on Moule Drive are located about 400 to 500 feet from the areas tested by the Army Corps. Like the Jana School property, these Moule Drive homes border on and are sometimes flooded by Coldwater Creek. Inhaling, ingesting or even dermal (skin) contact with these radioactive materials found inside the home can cause significant injury to humans. It is important to test for these same materials indoors at the nearby elementary school.

The Army Corps first detected radioactive thorium near the school in 2018 and confirmed the results with further testing in 2019, 2020 and 2021. ATSDR made its Coldwater Creek-area indoor testing recommendations in 2019. The Army Corps informed the Superintendent of the Hazelwood School District on January 27, 2022. “The property located at 405 Jana Drive is identified as CWC-386. The results show the presence of low-level radioactive contamination on this property located in the banks of Coldwater Creek within the property boundary.” This “low-level radioactive contamination” is many times the allowable EPA clean-up levels for thorium and radium. According to the EPA Region 7 proposed record of decision for the nearby Westlake Landfill, the cleanup levels are:

Radium-226 + Radium-228 < 2.9 pCi/g

Thorium-230 + Thorium-232 < 2.9 pCi/g

The actual “low” levels found for these isotopes range up to 3.91 pCi/g for radium-226 + radium-228 and 35.50 pCi/g for thorium-230 + thorium-232.

Given these elevated levels of radioisotopes detected around the Jana Elementary School, Boston Chemical Data was contracted to perform additional sampling in and around the school. This sampling and associated test results are described below.

Sampling and testing by Boston Chemical Data

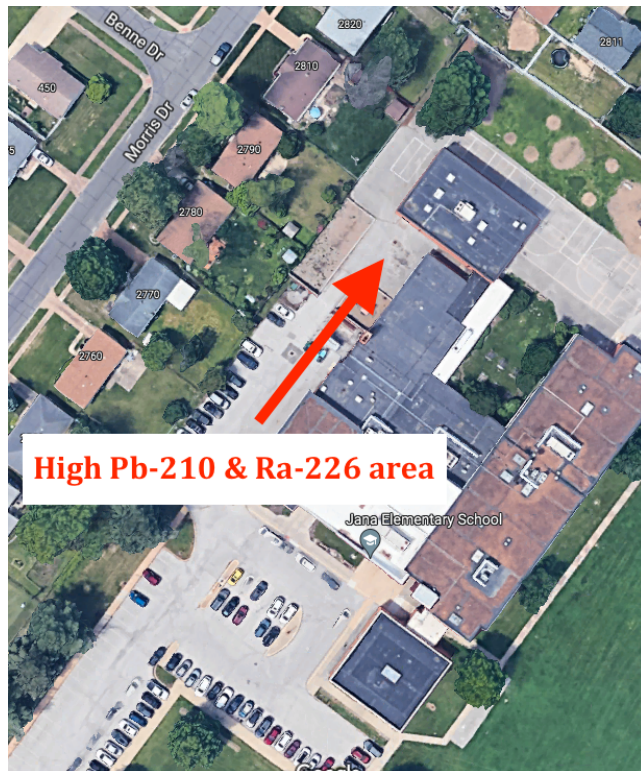
On August 15, 2022, samples were collected at the Jana Elementary School (Florissant, MO; Hazelwood School District) by Dr. Marco Kaltofen, PE (civil, Mass., Boston Chemical Data Corp.) and Brian Moore (Professional Geologist, Carriage House Consulting). A total of thirty-two soil, dust and plant material samples were collected. Samples were analyzed by Eberline Analytical of Oak Ridge, TN, by high-resolution gamma spectroscopy, Eichrom-method analysis for lead-210, and by alpha spectroscopy; for radioactive isotopes of thorium (227, 228, 230, 232, 234), uranium (234, 235, 238), radium (226, 228), lead (210, 212, 214), polonium-210, bismuth-214, protactinium-234m, thallium-208, potassium-40, cobalt-60, cesium (134, 137), and actinium-228. These isotopes are primarily related to naturally occurring nuclides and their decay daughters, which are associated with uranium ores processed by the Mallinckrodt Firm in

St. Louis and disposed of in locations found in the North St. Louis County area. In addition, dust and particulate matter samples were analyzed by Microvision Laboratories of Chelmsford, MA via scanning electron microscopy with energy dispersive X-ray analysis (SEM/EDS).

Samples included dusts from the school's kitchen and library, heating and ventilation system dusts, dusts from classroom surfaces, playground, and ballfield soils, as well as soils and sediments from the nearby Coldwater Creek (CWC) and from Lawnview Creek, a tributary of CWC to the southwest of the school grounds.

Discussion of Results

The data from Eberline Analytical Services was used to assess the radioisotope content of soils and dusts. The most outstanding result of August 2022 testing at the Jana School was that levels of the radioactive isotope lead-210 found on school grounds were entirely unacceptable. Lead-210 levels were far in excess of the natural background



(46.8 ± 1.25 picoCuries per gram [pCi/g] in the kindergarten play area vs. an expected background of 2.08 pCi/g and lower, reference: US EPA 2018). This is more than 22 times the expected background, and many times above the 7.08 pCi/g net alpha activity allowed under federal CERCLA regulations.

In addition, lead-210 was found in soils immediately adjacent to the school's basketball courts at 25.8 ± 0.93 pCi/g. This activity level is more than 12 times the expected background. This radioactively contaminated soil is also many times above the 7.08 pCi/g net alpha activity allowed under federal CERCLA regulations.

Radium-226 was found at the Jana School at levels more than twice the expected background (3.79 ± 1.26 pCi/g in the kindergarten playground area vs. the expected background of 1.06 pCi/g, reference: US EPA 2018). The presence of radium-226 at the Jana School raises concerns about release of its gaseous decay product radon-222 from the soil, leading to the accumulation of radon-222 and radon decay products such as lead-210. The DOE concluded in 1993 that approximately 90% of the radiological risks to future residents exposed to residual processing wastes from the Mallinckrodt plant is attributable to lead-210 (reference: US DOE 1993).

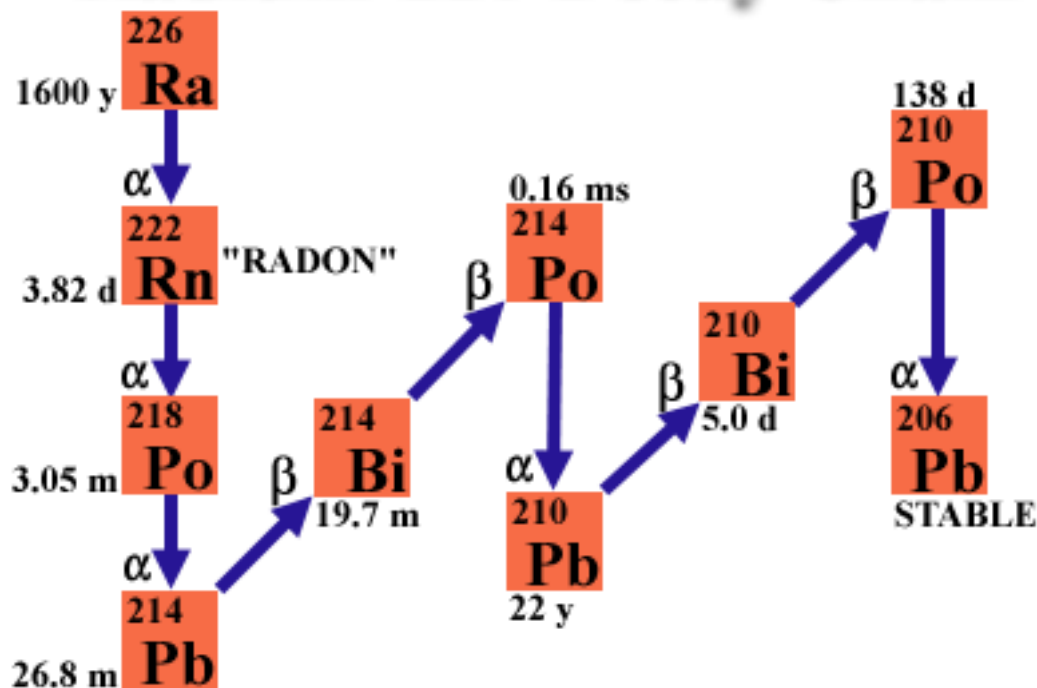
The presence of lead-210 in soils and dusts at the Jana School is important beyond the excess radioactivity detected. Alpha radiation is especially biologically damaging compared to other forms of radiation such as beta and gamma radiation. Lead-210 is an alpha

emitter (Kaltofen 2021). Lead-210 also produces polonium-210 when it decays. Every time an atom of lead-210 decays, it decays into polonium-210 within a few days or weeks. Polonium-210 is itself an alpha emitter, and it decays with a half-life of much less than a year (138 days). This means that each decay of lead-210 will shortly be followed by an equally damaging decay of polonium-210. This is called secular equilibrium.

Because of the impact of secular equilibrium in lead-210 decay, the true activity resulting from the 46.8 pCi/g of lead-210 found at the school is effectively doubled when polonium-210 is accounted for, resulting in 93.6 pCi/g of alpha activity, vs. the background (4.16 pCi/g for combined lead-210 and polonium-210) or the maximum net amount of alpha activity allowed in surface soils by CERCLA, which is 5.0 pCi/g. Likewise, lead-210 and polonium-210 were found in indoor dust from the Jana School kitchen at a combined total activity of 27.8 ± 3.0 pCi/g.

Similar events occur with radium-226 (found at 3.79 ± 1.26 pCi/g in the kindergarten playground area vs. the expected background of 1.06 pCi/g) where radium-226 decays quickly lead to radioactive decays from bismuth-214 and alpha-emitting polonium-214 (reference: National Institute of Standards and Technology, 2022, <https://www.nist.gov/image-23773>). The full decay chain is reproduced below.

Radium-226 Decay Chain

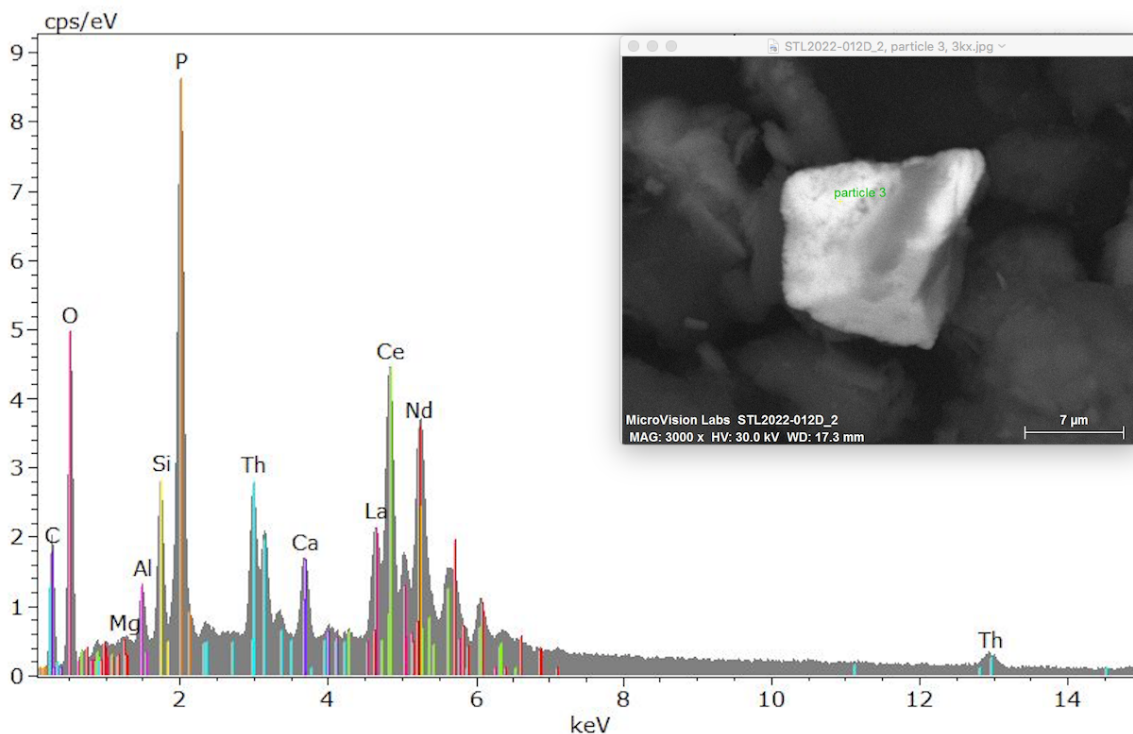


X-ray Data

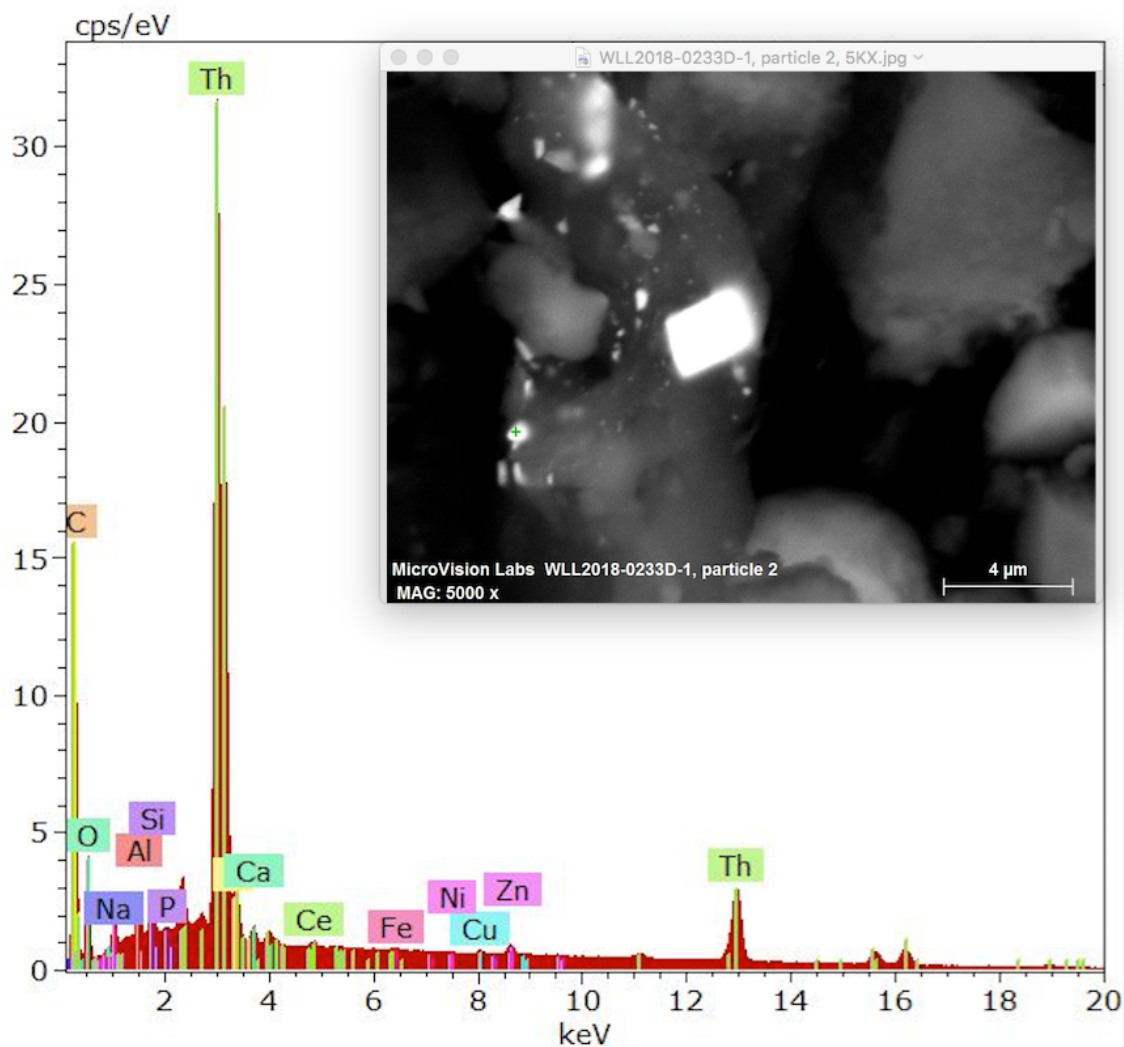
The Microvision SEM/EDS X-ray data was used to detect and assess radioactive particulate matter associated with contamination from flooding of the nearby Coldwater Creek. The most outstanding result of these analyses was that multiple examples of thorium-containing radioactive particulate matter were detected in the Jana School samples. The results were concerning because inhaling or ingested these particulates could subject one to long-term internal exposure to alpha-radiation emitting microscopic particles. Individual radioactive dust and soil particles were identified that contained as much as 15 percent thorium by weight. Thorium is a radio-toxic natural material that was found in earlier testing by the US Army Corps of Engineers

in their initial investigation of Coldwater Creek soils near the school and is associated with the contamination known to be in the creek's sediments.

Of the three hundred and eighty-six (386) microparticles examined in samples from the Coldwater Creek and related areas, three out of the four radioactive microparticles with the highest thorium concentrations came from the Moule Drive/Jana School site. Put another way, of the hundreds of samples collected from the North St. Louis County area, none had more thorium than particulate matter found in the Jana School and in nearby homes adjacent to the Jana School. (Below: X-ray data for 15% thorium dust particle from the Jana School kitchen).



Below: 70.4% thorium radioactive microparticle found in home on Moule Drive, adjacent to the Jana School.



Potential remedial alternatives

Radiological contamination in Coldwater Creek (CWC) has spread to nearby properties via occasional flooding of this waterway. Given that radiological contamination related to these contaminants in the creek has been found in both the indoor (dust) and outdoor (soil) environments at the Jana School, a significant remedial program will be required to bring conditions at the school into line with expectations for indoor spaces that are protective of all users, regardless of age.

Under more typical circumstances, where there is no continuing source of radiological contamination, (1) a thorough professional removal of settled dusts within the school, (2) clean fill cover of outdoor soils that have lower (but still excessive) radiological levels, and (3) outright removal of higher radiological contamination areas, such as the kindergarten play area soils and sediments; might be sufficient to remain protective of all users of the Jana School.

Coldwater Creek must, however, be remediated in order to gain a permanent solution for the Jana School – otherwise future flooding will nullify any temporary remedial gains achieved by following steps 1, 2 and 3 above. Of course, a temporary remedial solution for the Jana School still has public health benefits; it's simply not a permanent solution.

Conclusions

Evidence from community-based testing by Boston Chemical Data Corp., along with similar evidence based on testing by the US Army Corps of Engineers, demonstrates that radiological contamination exists at unacceptable levels (greater than 5.0 net pCi/g as alpha radiation) at the Jana School property.

The additional community-based test results demonstrate that the radioactive isotopes lead-210, polonium-210, and to a lesser extent, radium-226 are found at levels well above background in surface soils proximate to the school building and play areas, and in indoor dusts at the Jana School.

Indoor dusts (in the gym and the boiler room) at the Jana School were found to contain radioactive particulate matter with percent-concentrations of radioactive thorium, an alpha-emitting radioactive contaminant. These thorium concentrations for dusts at the Jana School were among the highest found in the North St. Louis County area.

Remedial measures are appropriate to reduce exposures to radioactive materials for users of the school building and grounds but are complicated by the potential for recontamination due to flooding of the contaminated Coldwater Creek.

Additional References:

ATSDR 2019, Evaluation of Community Exposures Related to Coldwater Creek, EPA FACILITY ID: MOD980633176

www.atsdr.cdc.gov/sites/coldwater_creek/docs/St_Louis_Airport_Site_Hazelwood_InterimSto_PHA-508.pdf

Kaltofen, 2015. Tracking legacy radionuclides in St. Louis, Missouri, via unsupported ^{210}Pb .

<http://dx.doi.org/10.1016/j.jenvrad.2015.12.007>

Kaltofen, 2018, Forensic microanalysis of Manhattan Project legacy radioactive wastes in St. Louis, MO,

<https://doi.org/10.1016/j.apradiso.2018.02.020>

Kaltofen, 2019, M. P. J. Kaltofen, Microanalysis of Particle-Based Uranium, Thorium, and Plutonium in Nuclear Workers House Dusts, *J. Envir. Eng. Sci.*, 2019a, 36, 2, 2019a, DOI: 10.1089/ees.2018.0036

Kaltofen, 2021, Radioactive Isotopes Measured at Olympic and Paralympic Venues in Fukushima Prefecture and Tokyo, Japan, *Envir. Eng. Sci.*, Volume 38, Number 2, 2021 a, DOI: 10.1089/ees.2020.0139

US DOE 1993, Baseline Risk Assessment for Exposure to Contaminants at the St. Louis Site,

<https://www.osti.gov/biblio/10139715>

US EPA 2018, Record of Decision, Westlake Landfill

Appendix 1: Summary of Army Corps Data

The results of the Army Corps analyses show that radioactive contamination is present on the Jana Elementary School property. The following results are for the Army Corps Jana School data in pCi/g. Background activities for these isotopes are approximately 1.0 to 1.5 pCi/g in soil and these charts isotopic results in soils above 2.0 pCi/g. Data is in pCi/g. (reference: <https://semspub.epa.gov/work/07/30356608.pdf>)

Jana School samples with elevated Ra-226 (2 pCi/g or more, 11 of 215)

SVP211105	2.04 ± 0.52	SVP208718	2.50 ± 0.61
SVP211106	2.05 ± 0.53	SVP208731	3.01 ± 0.73
SVP205298	2.10 ± 0.51	SVP208723	2.06 ± 0.50
SVP205299	2.90 ± 0.70	SVP208720	2.22 ± 0.54
SVP205306	2.48 ± 0.61	SVP208719	2.09 ± 0.51
SVP208714	2.09 ± 0.51		

Mean = 2.32 ± 0.57 Range = ND to 3.01 Background 1.06

Jana samples with excessive Th-228 (3 of 215)

SVP190155	2.25 ± 0.70
SVP202537	2.13 ± 0.72
SVP207132	2.22 ± 0.82

Mean = 2.20 ± 0.75 Range = ND to 2.25

Jana samples with excessive Th-230 (84 of 215, too numerous to list)

Mean = 6.18 ± 1.46 Range = ND to 34.30 Background = 1.51

Jana sample with excessive U-235 (1 of 215)

SVP190188	0.66 ± 0.36
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Mean = 0.66 ± 0.36 Range = ND to 0.66

Jana samples with excessive U-238, Ra228, or Th232 (0 of 215)

Appendix 2: Summary of BCD/Community Data

Exhibit A – Eberline Jana Elemntary School Data (attached)

Exhibit B – ALS and Eberline Moule Drive Data (attached)

Cases:

A list of cases where Dr. Kaltofen has given testimony can be found at: <http://www.bostonchemicaldata.com/cases.html>

Signature:

Signed and sworn under pain and penalty
of perjury according to federal law this
____10th____ day of October, 2022

by

A handwritten signature in black ink, appearing to read 'M. Kaltofen', with a long horizontal line extending from the end of the signature.

MARCO KALTOFEN, P.E., PhD.

Massachusetts Registered

Professional Civil Engineer

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.66E+02	1.04E+01			pCi/g
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.62E+02	6.66E+00			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.50E+02	1.42E+01	1.91E+01	2.78E+00	pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.64E+02	1.60E+01	1.81E+01	2.35E+00	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	-5.11E-03	7.40E-02	7.40E-02	1.34E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	6.61E-02	7.48E-02	7.49E-02	1.24E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	5.48E-03	3.05E-02	3.05E-02	4.83E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-1.26E-02	1.88E-02	1.88E-02	4.31E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	2.55E-02	2.88E-02	2.89E-02	5.08E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	3.00E-01	1.88E-01	1.88E-01	5.23E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	1.76E+00	2.68E+00	2.68E+00	5.35E+00	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	5.34E-02	4.98E-02	4.98E-02	7.72E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.27E-02	6.15E-02	6.15E-02	9.64E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	8.35E-01	5.58E-01	5.60E-01	9.33E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	5.84E-02	6.35E-02	6.36E-02	1.22E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	2.88E-02	2.18E-01	2.18E-01	1.44E+00	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	8.96E-01	4.62E-01	4.64E-01	6.64E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	9.07E-02	2.47E-01	2.48E-01	3.37E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-1.32E-01	1.37E-01	1.37E-01	4.19E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.68E-01	2.62E-01	2.62E-01	4.57E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	8.80E+00	3.52E+00	3.55E+00	3.72E+00	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	8.23E+00	2.00E+01	2.00E+01	3.74E+01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	3.99E-01	4.87E-01	4.87E-01	8.12E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	2.68E-01	5.09E-01	5.09E-01	8.25E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.47E+00	2.58E+00	2.58E+00	4.24E+00	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	9.70E-01	7.01E-01	7.03E-01	1.10E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	-5.76E-02	1.87E-01	1.87E-01	1.39E+00	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	7.67E-01	7.27E-01	7.28E-01	1.20E+00	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	4.03E-04	2.43E-01	2.43E-01	4.08E-01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-8.32E-02	9.97E-02	9.97E-02	4.24E-01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	5.48E-02	2.67E-01	2.67E-01	4.38E-01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	8.28E+00	3.06E+00	3.09E+00	2.28E+00	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	-3.15E+00	2.53E+01	2.53E+01	4.09E+01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	9.37E-01	3.69E-01	3.72E-01	6.37E-01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	8.63E-01	5.55E-01	5.56E-01	1.04E+00	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.46E+00	2.31E+00	2.31E+00	4.29E+00	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	-4.42E-02	6.42E-01	6.42E-01	1.01E+00	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	2.03E-01	4.58E+01	4.58E+01	6.94E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	5.41E+00	2.23E+01	2.23E+01	3.80E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	1.46E+01	9.05E+00	9.09E+00	1.55E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	4.41E+00	1.07E+01	1.07E+01	1.85E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	3.06E+00	1.20E+01	1.20E+01	2.09E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	4.00E+01	1.07E+02	1.07E+02	2.08E+02	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	0.00E+00	8.15E+02	8.15E+02	1.70E+03	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	6.35E+00	1.20E+01	1.20E+01	1.99E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	2.46E+01	1.56E+01	1.56E+01	3.10E+01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.49E+02	1.25E+02	1.25E+02	1.92E+02	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	-1.71E+00	2.73E+01	2.73E+01	4.53E+01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	6.11E-01	9.60E+00	9.60E+00	1.53E+01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	-2.34E-01	5.81E+00	5.81E+00	8.71E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	1.19E+00	2.13E+00	2.13E+00	4.11E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-4.06E-01	2.85E+00	2.85E+00	3.57E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	3.12E-01	2.58E+00	2.58E+00	4.11E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.41E+01	1.66E+01	1.66E+01	3.75E+01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	9.46E+01	2.95E+02	2.95E+02	5.00E+02	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	-5.06E-01	1.52E+00	1.52E+00	5.76E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	6.35E+00	4.89E+00	4.91E+00	8.82E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	3.84E+01	3.87E+01	3.88E+01	6.40E+01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	-1.01E+00	7.28E+00	7.28E+00	1.10E+01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	6.63E+00	9.21E+00	9.22E+00	1.67E+01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	9.24E+00	6.47E+00	6.49E+00	1.02E+01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	1.62E+00	2.19E+00	2.19E+00	4.21E+00	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-5.87E+00	3.82E+00	3.83E+00	3.74E+00	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	-9.15E-01	3.11E+00	3.11E+00	4.06E+00	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	2.18E+01	1.63E+01	1.63E+01	4.25E+01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	2.94E+01	2.65E+02	2.65E+02	4.58E+02	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	3.02E-01	4.26E+00	4.26E+00	6.50E+00	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	2.10E+00	5.33E+00	5.33E+00	8.55E+00	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	4.97E+01	4.45E+01	4.46E+01	7.25E+01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	5.61E+00	6.46E+00	6.47E+00	1.18E+01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	6.93E-01	5.24E-01	5.26E-01	1.05E+00	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	5.68E-01	3.56E-01	3.57E-01	5.66E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-1.57E-02	1.28E-01	1.28E-01	1.44E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	8.58E-03	4.06E-02	4.06E-02	1.53E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.34E-01	8.13E-02	8.16E-02	1.17E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	8.68E+00	2.03E+00	2.08E+00	1.42E+00	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	1.35E+01	1.03E+01	1.03E+01	2.12E+01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	6.55E-01	2.68E-01	2.70E-01	4.17E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	7.22E-01	2.90E-01	2.92E-01	4.35E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	2.00E+00	1.86E+00	1.86E+00	3.09E+00	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	3.58E-01	3.02E-01	3.02E-01	5.48E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.49E+00	4.35E-01	4.41E-01	9.56E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	6.73E-01	3.17E-01	3.19E-01	5.48E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-1.84E-02	1.33E-01	1.33E-01	1.50E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-1.07E-02	5.84E-02	5.84E-02	1.66E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	6.80E-02	1.10E-01	1.10E-01	1.79E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.89E+01	2.77E+00	2.94E+00	1.25E+00	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	-1.09E+00	1.17E+01	1.17E+01	1.76E+01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.62E+00	3.34E-01	3.44E-01	4.72E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	8.91E-01	3.50E-01	3.53E-01	5.38E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	4.39E+00	1.99E+00	2.00E+00	3.26E+00	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	9.36E-01	2.81E-01	2.85E-01	4.84E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.57E+00	4.58E-01	4.65E-01	9.31E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	1.28E+00	3.28E-01	3.35E-01	4.88E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.22E-03	1.92E-01	1.92E-01	2.68E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-6.80E-02	8.62E-02	8.62E-02	2.76E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	-7.48E-02	1.48E-01	1.48E-01	2.18E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	2.13E+01	3.77E+00	3.92E+00	2.10E+00	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	6.51E+00	1.40E+01	1.40E+01	2.43E+01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.98E+00	4.80E-01	4.91E-01	6.04E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.40E+00	3.24E-01	3.32E-01	4.85E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.21E-01	1.78E+00	1.78E+00	2.67E+00	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	7.78E-01	3.78E-01	3.80E-01	6.82E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.00E+00	3.43E-01	3.47E-01	5.42E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	7.98E-01	2.26E-01	2.29E-01	3.93E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.50E-03	1.05E-01	1.05E-01	1.20E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-5.05E-01	2.09E-01	2.11E-01	1.42E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	6.19E-02	1.08E-01	1.08E-01	1.62E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.48E+01	2.39E+00	2.51E+00	1.78E+00	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	1.04E+00	8.03E+00	8.03E+00	1.38E+01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.52E+00	2.81E-01	2.92E-01	3.61E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	9.99E-01	2.12E-01	2.18E-01	3.87E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	5.17E+00	2.25E+00	2.26E+00	8.14E+00	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	7.16E-01	2.98E-01	3.00E-01	5.52E-01	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	4.18E-01	1.10E+00	1.10E+00	2.15E+00	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	5.15E-01	7.51E-01	7.52E-01	1.42E+00	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.61E-02	4.86E-01	4.86E-01	7.06E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-4.41E-01	4.51E-01	4.52E-01	6.11E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	2.05E-01	4.34E-01	4.35E-01	7.98E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.14E+01	5.04E+00	5.07E+00	2.85E+00	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	-4.26E+00	4.37E+01	4.37E+01	6.71E+01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	5.35E-01	5.58E-01	5.59E-01	9.69E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.51E-01	8.29E-01	8.29E-01	1.35E+00	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	2.91E+00	5.22E+00	5.22E+00	7.60E+00	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	3.14E-02	1.16E+00	1.16E+00	1.85E+00	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.12E+00	3.09E-01	3.14E-01	5.62E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	1.02E+00	2.18E-01	2.25E-01	3.50E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-7.11E-03	9.53E-02	9.53E-02	1.22E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	1.34E-02	4.25E-02	4.25E-02	1.42E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.67E-02	9.61E-02	9.61E-02	1.41E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.23E+01	2.00E+00	2.09E+00	1.54E+00	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	1.09E+01	1.21E+01	1.22E+01	2.02E+01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.45E+00	2.56E-01	2.66E-01	3.35E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.32E+00	2.30E-01	2.40E-01	3.30E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	2.66E+00	2.11E+00	2.12E+00	3.51E+00	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	9.40E-01	2.57E-01	2.61E-01	2.28E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	6.21E-01	6.27E-01	6.28E-01	1.22E+00	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	1.09E+00	3.93E-01	3.97E-01	6.20E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	2.12E-02	1.73E-01	1.73E-01	2.99E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-8.83E-02	1.11E-01	1.11E-01	3.16E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	4.03E-02	2.09E-01	2.09E-01	2.97E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	6.44E+00	3.00E+00	3.01E+00	4.04E+00	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	4.98E+00	1.82E+01	1.82E+01	3.21E+01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.28E+00	6.85E-01	6.88E-01	6.31E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	7.45E-01	4.28E-01	4.30E-01	6.18E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	4.15E+00	4.72E+00	4.73E+00	7.90E+00	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	1.19E+00	5.24E-01	5.27E-01	1.06E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.45E+00	1.17E+00	1.17E+00	2.17E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	-1.15E-01	1.69E-01	1.70E-01	1.12E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	7.71E-02	3.53E-01	3.53E-01	5.23E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-7.66E-02	1.93E-01	1.93E-01	4.72E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	6.24E-02	3.21E-01	3.21E-01	5.21E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	2.06E+01	6.44E+00	6.52E+00	7.57E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	8.15E+00	3.46E+01	3.46E+01	5.81E+01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	2.51E+00	7.76E-01	7.87E-01	1.07E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.74E+00	8.60E-01	8.65E-01	1.62E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	-1.27E+00	3.79E+00	3.79E+00	5.29E+00	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	1.14E+00	9.40E-01	9.42E-01	1.65E+00	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.62E+00	6.90E-01	6.95E-01	1.49E+00	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	9.90E-01	3.63E-01	3.67E-01	1.23E+00	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-8.85E-02	2.37E-01	2.37E-01	3.40E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	2.28E-03	8.11E-02	8.11E-02	3.38E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	2.24E-01	2.39E-01	2.39E-01	3.95E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	2.05E+01	4.60E+00	4.72E+00	3.78E+00	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	8.43E+00	1.88E+01	1.88E+01	3.52E+01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.47E+00	4.74E-01	4.80E-01	7.11E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.39E+00	4.85E-01	4.90E-01	8.09E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.80E+00	2.90E+00	2.90E+00	4.07E+00	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	1.05E+00	5.49E-01	5.52E-01	7.34E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.27E+00	4.96E-01	5.01E-01	9.90E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	4.94E-01	2.70E-01	2.71E-01	5.64E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	3.78E-03	1.17E-01	1.17E-01	1.26E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	2.15E-02	6.51E-02	6.51E-02	1.63E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.49E-01	1.18E-01	1.18E-01	2.02E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.20E+01	2.14E+00	2.23E+00	1.31E+00	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	2.87E+00	1.05E+01	1.05E+01	1.70E+01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.23E+00	3.03E-01	3.10E-01	4.39E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	8.79E-01	2.28E-01	2.32E-01	3.83E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	3.47E+00	1.82E+00	1.83E+00	2.98E+00	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	6.63E-01	2.89E-01	2.91E-01	6.09E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	4.93E-01	2.97E-01	2.99E-01	4.87E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	8.23E-01	2.06E-01	2.10E-01	3.41E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	5.75E-02	7.41E-02	7.42E-02	9.87E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-1.39E-02	5.18E-02	5.18E-02	1.26E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	6.47E-02	6.24E-02	6.25E-02	1.01E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	7.04E+00	1.88E+00	1.91E+00	2.31E+00	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	9.09E+00	8.12E+00	8.14E+00	1.30E+01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.15E-01	1.67E-01	1.67E-01	2.47E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	7.48E-01	2.82E-01	2.85E-01	2.95E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	2.12E+00	1.59E+00	1.60E+00	2.49E+00	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	5.78E-01	2.12E-01	2.14E-01	3.73E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	1.45E+00	6.90E-01	6.94E-01	1.16E+00	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	1.07E+00	3.44E-01	3.48E-01	5.57E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-1.24E-01	2.16E-01	2.16E-01	2.76E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	-1.33E-02	5.71E-02	5.71E-02	2.28E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	1.06E-01	1.49E-01	1.49E-01	2.51E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.98E+01	3.65E+00	3.79E+00	2.23E+00	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	-2.07E+01	1.84E+01	1.84E+01	2.33E+01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.77E+00	4.24E-01	4.34E-01	5.45E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.28E+00	4.61E-01	4.65E-01	6.97E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	1.56E+00	1.62E+00	1.62E+00	2.65E+00	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	1.15E+00	3.11E-01	3.17E-01	2.78E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Actinium-228	EPA 901.1 Modified	6.35E-01	7.05E-01	7.05E-01	1.32E+00	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Bismuth-214	EPA 901.1 Modified	9.68E-01	4.24E-01	4.27E-01	3.75E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Cobalt-60	EPA 901.1 Modified	-2.10E-02	1.68E-01	1.68E-01	2.69E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Cesium-134	EPA 901.1 Modified	1.66E-02	9.02E-02	9.02E-02	3.06E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Cesium-137	EPA 901.1 Modified	-4.97E-02	2.12E-01	2.12E-01	3.30E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Potassium-40	EPA 901.1 Modified	1.41E+01	3.51E+00	3.58E+00	2.66E+00	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Protactinium-234m	EPA 901.1 Modified	4.01E+00	1.61E+01	1.61E+01	2.92E+01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Lead-212	EPA 901.1 Modified	1.48E+00	4.24E-01	4.31E-01	6.17E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Lead-214	EPA 901.1 Modified	1.04E+00	4.45E-01	4.48E-01	8.35E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Thorium-234	EPA 901.1 Modified	3.17E+00	2.34E+00	2.35E+00	3.84E+00	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	8/22/2022	22-08062	Thallium-208	EPA 901.1 Modified	1.33E+00	6.70E-01	6.74E-01	1.02E+00	pCi/g
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	2.01E+01	7.42E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.56E+01	1.54E+00	2.55E+00	8.91E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.73E-01	3.27E-01	3.28E-01	6.81E-01	pCi/g
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	9.03E-01	3.27E-01	3.47E-01	5.95E-01	pCi/g
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.02E+00	3.29E-01	3.55E-01	5.87E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.39E+01	1.49E+00	2.35E+00	2.02E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	4.14E+00	4.09E-01	6.78E-01	4.90E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	7.89E-01	4.46E-01	4.58E-01	8.60E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	4.69E+01	1.25E+00	6.25E+00	5.98E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	4.53E+00	4.30E-01	7.32E-01	4.85E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	4.94E+00	4.87E-01	8.09E-01	5.78E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	2.01E+00	3.83E-01	4.64E-01	6.22E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	3.00E-01	3.42E-01	3.45E-01	6.99E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.17E+00	3.51E-01	3.83E-01	6.23E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	3.22E+00	4.38E-01	6.07E-01	6.23E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	2.32E+00	3.71E-01	4.79E-01	5.39E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.93E+00	3.67E-01	4.45E-01	5.78E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.79E+00	3.98E-01	4.62E-01	6.71E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	2.58E+01	9.33E-01	3.50E+00	5.22E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	1.42E+00	3.15E-01	3.65E-01	5.05E-01	pCi/g
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	9/20/2022	22-08062	Lead-210	EML Pb-01 Modified	2.09E+00	3.60E-01	4.52E-01	5.40E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:						
			Marco Kaltofen					SDG:	22-08062					
			Boston Chemical Data					Purchase Order:	STL 2022					
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL					
			Natick, MA 01760					Sample Matrix:	SO					
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units	
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.73E-01	3.27E-01	3.28E-01	6.81E-01	pCi/g	
22-08062-03	DUP	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	9.03E-01	3.27E-01	3.47E-01	5.95E-01	pCi/g	
22-08062-04	DO	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.02E+00	3.29E-01	3.55E-01	5.87E-01	pCi/g	
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.39E+01	1.49E+00	2.35E+00	2.02E+00	pCi/g	
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	4.14E+00	4.09E-01	6.78E-01	4.90E-01	pCi/g	
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	7.89E-01	4.46E-01	4.58E-01	8.60E-01	pCi/g	
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	4.69E+01	1.25E+00	6.25E+00	5.98E-01	pCi/g	
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	4.53E+00	4.30E-01	7.32E-01	4.85E-01	pCi/g	
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	4.94E+00	4.87E-01	8.09E-01	5.78E-01	pCi/g	
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	2.01E+00	3.83E-01	4.64E-01	6.22E-01	pCi/g	
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	3.00E-01	3.42E-01	3.45E-01	6.99E-01	pCi/g	
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.17E+00	3.51E-01	3.83E-01	6.23E-01	pCi/g	
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	3.22E+00	4.38E-01	6.07E-01	6.23E-01	pCi/g	
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	2.32E+00	3.71E-01	4.79E-01	5.39E-01	pCi/g	
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.93E+00	3.67E-01	4.45E-01	5.78E-01	pCi/g	
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.79E+00	3.98E-01	4.62E-01	6.71E-01	pCi/g	
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	2.58E+01	9.33E-01	3.50E+00	5.22E-01	pCi/g	
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	1.42E+00	3.15E-01	3.65E-01	5.05E-01	pCi/g	
22-08062-20	TRG	STL 2022-030S	08/15/22 14:20	8/17/2022	9/20/2022	22-08062	Polonium-210	EML Pb-01 Modified	2.09E+00	3.60E-01	4.52E-01	5.40E-01	pCi/g	

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	1.01E+01	4.65E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	1.07E+01	1.36E+00	2.63E+00	2.60E-01	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	1.46E-01	1.65E-01	1.68E-01	2.19E-01	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	3.34E-01	2.76E-01	2.85E-01	2.98E-01	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	-2.96E-02	1.26E-01	1.27E-01	3.52E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	7.31E-01	7.06E-01	7.23E-01	9.50E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	3.73E-01	2.45E-01	2.57E-01	2.06E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	4.54E-01	3.46E-01	3.59E-01	3.83E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	3.79E+00	1.26E+00	1.49E+00	6.28E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	3.50E-01	2.30E-01	2.42E-01	1.94E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	6.47E-01	3.45E-01	3.72E-01	2.88E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	6.62E-01	3.57E-01	3.83E-01	2.32E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	3.17E-01	2.55E-01	2.63E-01	2.86E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	4.21E-01	2.67E-01	2.82E-01	2.30E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	9.07E-01	4.06E-01	4.49E-01	2.21E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	5.56E-01	3.35E-01	3.55E-01	2.14E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	2.02E-01	1.84E-01	1.89E-01	1.74E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	5.23E-01	3.49E-01	3.67E-01	3.73E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	2.22E+00	8.98E-01	1.01E+00	5.14E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	2.61E-01	2.10E-01	2.17E-01	2.11E-01	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	9/14/2022	22-08062	Radium-226	EPA 903.0 Modified	2.62E-01	2.81E-01	2.86E-01	4.11E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	9.14E+00	4.66E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	8.43E+00	8.57E-01	2.09E+00	1.08E+00	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	-1.43E-02	5.02E-01	5.02E-01	1.08E+00	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.62E+00	5.14E-01	6.31E-01	9.22E-01	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	5.66E-01	5.69E-01	5.84E-01	1.15E+00	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.01E+00	1.65E+00	1.67E+00	3.42E+00	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.27E+00	4.93E-01	5.70E-01	9.14E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.34E+00	5.98E-01	6.70E-01	1.12E+00	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	2.11E+00	1.08E+00	1.19E+00	2.08E+00	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.10E+00	4.90E-01	5.49E-01	9.35E-01	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	5.74E-01	3.70E-01	3.92E-01	7.25E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	5.08E-01	4.06E-01	4.22E-01	8.10E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	6.48E-01	3.88E-01	4.15E-01	7.54E-01	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	8.69E-01	3.62E-01	4.12E-01	6.67E-01	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	5.48E-01	3.61E-01	3.82E-01	7.08E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	9.90E-01	4.08E-01	4.66E-01	7.64E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.46E+00	4.34E-01	5.45E-01	7.63E-01	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.09E+00	4.43E-01	5.07E-01	8.31E-01	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	2.60E+00	8.30E-01	1.02E+00	1.46E+00	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	2.04E+00	7.54E-01	8.84E-01	1.38E+00	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	9/16/2022	22-08062	Radium-228	EPA 904.0	1.69E+00	7.90E-01	8.78E-01	1.52E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltoven					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	4.55E-02	5.99E-02	6.02E-02	9.09E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	6.15E-02	6.73E-02	6.77E-02	8.04E-02	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	4.81E-02	9.21E-02	9.23E-02	1.69E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	9.09E-02	1.40E-01	1.40E-01	2.07E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	4.44E-02	1.12E-01	1.12E-01	2.31E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	6.25E-02	8.23E-02	8.26E-02	1.25E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	4.31E-02	5.60E-02	5.63E-02	7.74E-02	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	5.61E-02	5.19E-02	5.23E-02	4.85E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	2.51E-02	4.27E-02	4.28E-02	7.22E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	5.79E-02	7.02E-02	7.06E-02	9.85E-02	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	-3.09E-04	3.28E-02	3.28E-02	9.74E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	3.85E-02	5.00E-02	5.02E-02	6.92E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	7.99E-02	7.70E-02	7.76E-02	8.20E-02	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	6.22E-02	5.97E-02	6.01E-02	6.38E-02	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	3.90E-02	4.75E-02	4.77E-02	5.76E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	8.75E-02	7.70E-02	7.77E-02	8.74E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	9.49E-03	2.90E-02	2.91E-02	6.87E-02	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	1.02E-01	8.99E-02	9.08E-02	1.02E-01	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-227	EPA 907.0 Modified	6.88E-02	7.17E-02	7.22E-02	7.49E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltoben					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	3.84E+00	1.38E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	3.19E+00	6.52E-01	7.17E-01	7.48E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	1.95E-02	4.23E-02	4.23E-02	8.34E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	8.13E-01	2.77E-01	2.87E-01	1.29E-01	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	5.77E-02	1.13E-01	1.13E-01	2.10E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	1.22E-01	1.70E-01	1.71E-01	2.57E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	5.73E-03	8.01E-02	8.01E-02	2.29E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	6.58E-03	4.26E-02	4.26E-02	1.16E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	2.08E-01	1.24E-01	1.25E-01	1.01E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	6.06E-01	1.92E-01	2.00E-01	4.79E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	6.14E-01	2.16E-01	2.23E-01	8.93E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	8.82E-01	2.92E-01	3.03E-01	1.03E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	3.29E-02	5.34E-02	5.35E-02	9.15E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	6.36E-01	2.15E-01	2.23E-01	7.50E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	4.29E-01	1.86E-01	1.91E-01	9.56E-02	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	9.58E-01	2.68E-01	2.83E-01	6.31E-02	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	8.22E-01	2.47E-01	2.59E-01	7.69E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	6.10E-01	2.11E-01	2.19E-01	8.13E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	2.03E-01	1.13E-01	1.15E-01	8.01E-02	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	9.09E-01	2.93E-01	3.05E-01	1.00E-01	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-228	EPA 907.0 Modified	1.01E+00	3.19E-01	3.33E-01	8.48E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	5.49E+00	1.48E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	5.28E+00	9.94E-01	1.19E+00	6.35E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	6.90E-02	6.63E-02	6.68E-02	7.08E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	6.83E-01	2.45E-01	2.60E-01	1.12E-01	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	3.09E-02	9.13E-02	9.14E-02	1.98E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	2.66E-01	2.39E-01	2.42E-01	2.54E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	1.82E-01	1.73E-01	1.74E-01	1.57E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	2.61E-01	1.50E-01	1.53E-01	8.48E-02	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	7.05E-01	2.45E-01	2.60E-01	1.08E-01	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	6.23E-01	1.96E-01	2.10E-01	7.14E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	9.30E-01	2.79E-01	3.01E-01	8.82E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	8.88E-01	2.91E-01	3.11E-01	1.02E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	8.03E-02	7.44E-02	7.51E-02	8.51E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	6.61E-01	2.19E-01	2.33E-01	5.89E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	4.71E-01	1.96E-01	2.05E-01	1.00E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	9.37E-01	2.64E-01	2.88E-01	7.81E-02	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	7.89E-01	2.39E-01	2.58E-01	6.43E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	5.59E-01	1.99E-01	2.11E-01	8.02E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	4.84E-01	1.81E-01	1.91E-01	7.36E-02	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	6.13E-01	2.28E-01	2.40E-01	9.93E-02	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-230	EPA 907.0 Modified	1.01E+00	3.19E-01	3.43E-01	7.31E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	3.84E+00	1.38E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	3.46E+00	6.95E-01	7.59E-01	6.34E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	3.93E-02	5.11E-02	5.12E-02	7.07E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	8.59E-01	2.82E-01	2.92E-01	8.59E-02	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	1.54E-02	6.43E-02	6.43E-02	1.65E-01	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	3.19E-02	9.76E-02	9.77E-02	2.31E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	0.00E+00	1.04E-01	1.04E-01	2.26E-01	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	1.59E-01	1.16E-01	1.16E-01	8.46E-02	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	1.78E-01	1.12E-01	1.13E-01	8.89E-02	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	7.46E-01	2.19E-01	2.29E-01	6.78E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	7.91E-01	2.50E-01	2.59E-01	6.14E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	8.18E-01	2.76E-01	2.86E-01	1.02E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	9.52E-02	8.04E-02	8.08E-02	8.50E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	6.88E-01	2.24E-01	2.32E-01	5.88E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	4.34E-01	1.88E-01	1.91E-01	1.05E-01	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	9.75E-01	2.71E-01	2.84E-01	7.79E-02	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	7.10E-01	2.23E-01	2.32E-01	5.61E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	5.35E-01	1.93E-01	1.99E-01	6.79E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	3.62E-01	1.52E-01	1.55E-01	5.84E-02	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	8.43E-01	2.77E-01	2.87E-01	9.92E-02	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/29/2022	22-08062	Thorium-232	EPA 907.0 Modified	9.24E-01	3.00E-01	3.11E-01	7.30E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	8.19E+00	2.95E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	7.45E+00	8.76E-01	1.02E+00	7.07E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	2.00E-01	1.03E-01	1.04E-01	6.76E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	6.37E-01	1.91E-01	1.97E-01	7.60E-02	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	2.26E-01	1.04E-01	1.06E-01	5.00E-02	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	6.97E-01	3.15E-01	3.19E-01	2.21E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	1.88E-01	8.68E-02	8.79E-02	4.17E-02	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	3.70E-01	1.71E-01	1.73E-01	8.20E-02	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.83E-01	2.00E-01	2.04E-01	9.65E-02	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.72E-01	1.60E-01	1.65E-01	5.51E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.95E-01	1.92E-01	1.97E-01	8.71E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	4.54E-01	2.00E-01	2.02E-01	1.24E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	1.17E-01	8.37E-02	8.41E-02	9.27E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.86E-01	1.77E-01	1.82E-01	6.61E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	2.91E-01	1.13E-01	1.15E-01	6.00E-02	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	4.76E-01	1.76E-01	1.79E-01	1.03E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	6.47E-01	1.69E-01	1.75E-01	5.76E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.75E-01	1.56E-01	1.62E-01	6.25E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.77E-01	2.31E-01	2.35E-01	1.49E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	5.68E-01	1.68E-01	1.73E-01	4.96E-02	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-234	EPA 908.0 Modified	8.90E-01	2.21E-01	2.30E-01	5.24E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	4.94E-01	1.80E-01	1.83E-01	9.74E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	4.23E-02	5.46E-02	5.47E-02	7.60E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	1.16E-01	9.27E-02	9.31E-02	9.96E-02	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	2.96E-02	5.03E-02	5.03E-02	8.87E-02	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	1.99E-01	1.82E-01	1.83E-01	1.72E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	3.70E-02	4.84E-02	4.85E-02	7.39E-02	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	7.27E-02	9.52E-02	9.54E-02	1.45E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	5.29E-02	6.83E-02	6.84E-02	9.51E-02	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	2.15E-02	3.65E-02	3.65E-02	6.19E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	5.37E-02	7.04E-02	7.05E-02	1.07E-01	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	2.11E-02	5.06E-02	5.07E-02	1.06E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	4.40E-02	5.32E-02	5.33E-02	6.49E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	2.84E-02	4.35E-02	4.35E-02	6.49E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	6.56E-02	6.32E-02	6.34E-02	7.87E-02	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	3.68E-02	6.49E-02	6.50E-02	1.17E-01	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	5.87E-02	5.58E-02	5.59E-02	6.03E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	3.05E-02	4.22E-02	4.22E-02	6.42E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	8.29E-03	5.36E-02	5.36E-02	1.46E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	8.05E-02	7.12E-02	7.14E-02	7.69E-02	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-235	EPA 908.0 Modified	1.99E-01	1.11E-01	1.12E-01	6.47E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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			Marco Kaltofen					SDG:	22-08062				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08062-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	7.94E+00	2.86E-01			pCi/g
22-08062-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	7.20E+00	8.53E-01	9.96E-01	5.22E-02	pCi/g
22-08062-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	1.03E-01	7.61E-02	7.65E-02	7.71E-02	pCi/g
22-08062-03	DUP	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	6.70E-01	1.95E-01	2.01E-01	5.61E-02	pCi/g
22-08062-04	TRG	STL 2022-005D.1	08/15/22 09:05	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	1.77E-01	9.22E-02	9.30E-02	4.99E-02	pCi/g
22-08062-05	TRG	STL 2022-007D	08/15/22 09:20	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	2.62E-01	1.87E-01	1.88E-01	1.39E-01	pCi/g
22-08062-06	TRG	STL 2022-008D	08/15/22 09:40	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	9.97E-02	6.53E-02	6.57E-02	5.98E-02	pCi/g
22-08062-07	TRG	STL 2022-012D.1	08/15/22 10:20	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	2.42E-01	1.41E-01	1.42E-01	1.11E-01	pCi/g
22-08062-08	TRG	STL 2022-015S	08/15/22 10:45	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	5.47E-01	1.93E-01	1.97E-01	9.64E-02	pCi/g
22-08062-09	TRG	STL 2022-019S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	4.09E-01	1.34E-01	1.38E-01	6.28E-02	pCi/g
22-08062-10	TRG	STL 2022-020S	08/15/22 12:30	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	3.91E-01	1.54E-01	1.57E-01	8.69E-02	pCi/g
22-08062-11	TRG	STL 2022-021S	08/15/22 12:40	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	6.18E-01	2.34E-01	2.38E-01	1.23E-01	pCi/g
22-08062-12	TRG	STL 2022-022Z	08/15/22 12:50	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	1.01E-01	7.45E-02	7.49E-02	7.55E-02	pCi/g
22-08062-13	TRG	STL 2022-023S	08/15/22 13:10	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	4.61E-01	1.55E-01	1.59E-01	6.01E-02	pCi/g
22-08062-14	TRG	STL 2022-024S	08/15/22 13:30	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	2.64E-01	1.06E-01	1.08E-01	4.43E-02	pCi/g
22-08062-15	TRG	STL 2022-025S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	5.83E-01	1.92E-01	1.96E-01	6.27E-02	pCi/g
22-08062-16	TRG	STL 2022-026S	08/15/22 13:45	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	6.24E-01	1.65E-01	1.71E-01	6.10E-02	pCi/g
22-08062-17	TRG	STL 2022-027S	08/15/22 13:55	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	4.55E-01	1.38E-01	1.42E-01	6.23E-02	pCi/g
22-08062-18	TRG	STL 2022-028S	08/15/22 14:00	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	5.58E-01	2.22E-01	2.25E-01	1.00E-01	pCi/g
22-08062-19	TRG	STL 2022-029S	08/15/22 14:10	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	6.88E-01	1.88E-01	1.94E-01	7.11E-02	pCi/g
22-08062-20	DO	STL 2022-030S	08/15/22 14:20	8/17/2022	8/30/2022	22-08062	Uranium-238	EPA 908.0 Modified	6.14E-01	1.81E-01	1.87E-01	7.52E-02	pCi/g

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			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	2.66E+02	1.04E+01			pCi/g
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.62E+02	6.66E+00			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	2.81E+02	1.60E+01	2.16E+01	2.14E+00	pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.73E+02	1.54E+01	1.78E+01	1.86E+00	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.29E-01	1.36E-01	1.36E-01	2.65E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	-4.39E-02	8.09E-02	8.09E-02	1.19E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-1.02E-02	3.46E-02	3.46E-02	5.54E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-7.62E-03	3.56E-02	3.56E-02	5.51E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	4.95E-02	3.82E-02	3.83E-02	7.47E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	-5.39E-02	3.99E-01	3.99E-01	6.08E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	1.03E+00	3.26E+00	3.26E+00	6.15E+00	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	5.03E-02	5.15E-02	5.16E-02	8.64E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	-6.94E-02	7.94E-02	7.95E-02	1.11E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	6.75E-01	4.39E-01	4.41E-01	6.81E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	2.27E-02	1.12E-01	1.12E-01	1.83E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.56E+00	4.07E-01	4.15E-01	7.80E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.25E+00	2.56E-01	2.64E-01	3.82E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-8.05E-03	1.23E-01	1.23E-01	1.53E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	3.30E-02	5.08E-02	5.08E-02	1.56E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	2.40E-01	1.33E-01	1.34E-01	2.09E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.99E+01	2.92E+00	3.10E+00	2.47E+00	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	8.94E+00	1.06E+01	1.06E+01	1.75E+01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	2.14E+00	3.42E-01	3.59E-01	4.28E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.41E+00	2.55E-01	2.65E-01	3.79E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	3.91E+00	2.24E+00	2.25E+00	3.56E+00	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	9.71E-01	2.38E-01	2.43E-01	3.53E-01	pCi/g

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			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.26E+00	3.92E-01	3.97E-01	7.87E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.28E+00	2.50E-01	2.59E-01	3.40E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-1.10E-01	1.29E-01	1.29E-01	1.47E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-6.06E-03	4.55E-02	4.55E-02	1.62E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.88E-01	1.01E-01	1.01E-01	1.55E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.26E+01	3.10E+00	3.31E+00	2.30E+00	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	-1.31E+00	1.03E+01	1.03E+01	1.49E+01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.98E+00	3.30E-01	3.45E-01	4.21E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.05E+00	2.70E-01	2.76E-01	4.72E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.52E+00	2.46E+00	2.47E+00	4.11E+00	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.17E+00	2.85E-01	2.91E-01	4.52E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	2.05E+00	7.80E-01	7.87E-01	1.28E+00	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.38E+00	4.37E-01	4.43E-01	1.01E+00	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	2.27E-01	2.64E-01	2.64E-01	2.90E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-2.00E-01	2.44E-01	2.45E-01	3.35E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	-4.91E-02	2.00E-01	2.00E-01	3.15E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.53E+01	4.61E+00	4.79E+00	8.79E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	1.32E+01	2.17E+01	2.17E+01	3.94E+01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.98E+00	4.61E-01	4.72E-01	6.12E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.22E+00	4.31E-01	4.35E-01	7.54E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	5.12E+00	4.24E+00	4.25E+00	6.84E+00	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.95E+00	5.07E-01	5.17E-01	1.33E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.28E+00	3.91E-01	3.96E-01	7.35E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.04E+00	2.15E-01	2.22E-01	4.79E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-1.48E-02	9.97E-02	9.97E-02	1.58E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-6.91E-01	2.51E-01	2.54E-01	1.49E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	8.33E-02	6.57E-02	6.58E-02	1.52E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.69E+01	2.60E+00	2.74E+00	1.74E+00	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	3.99E+00	9.10E+00	9.11E+00	1.59E+01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.33E+00	6.12E-01	6.16E-01	3.32E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.37E+00	4.39E-01	4.45E-01	6.32E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.39E+00	1.91E+00	1.91E+00	3.15E+00	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	8.54E-01	2.77E-01	2.80E-01	5.71E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.13E+00	3.90E-01	3.94E-01	8.68E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	9.70E-01	3.29E-01	3.33E-01	4.83E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	3.80E-02	9.19E-02	9.19E-02	2.14E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-1.89E-01	1.15E-01	1.16E-01	2.03E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.65E-01	1.16E-01	1.16E-01	3.43E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.59E+01	2.86E+00	2.98E+00	5.63E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	2.90E+00	1.43E+01	1.43E+01	2.45E+01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.20E+00	2.87E-01	2.94E-01	4.00E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	9.38E-01	2.96E-01	3.00E-01	5.55E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.19E+00	1.98E+00	1.98E+00	2.81E+00	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	8.94E-01	4.34E-01	4.37E-01	7.75E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	3.16E+00	4.50E+00	4.51E+00	8.71E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	-2.30E-01	9.77E-01	9.77E-01	4.46E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-7.09E-01	1.70E+00	1.70E+00	2.35E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-2.69E-01	9.04E-01	9.04E-01	2.14E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	-6.96E-01	1.67E+00	1.68E+00	2.52E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.03E+01	1.82E+01	1.82E+01	3.50E+01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	1.00E+02	1.82E+02	1.82E+02	3.30E+02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.68E+00	1.96E+00	1.96E+00	3.24E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	2.04E+00	2.98E+00	2.99E+00	5.00E+00	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	1.25E+01	1.77E+01	1.77E+01	2.63E+01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.90E+00	3.38E+00	3.38E+00	6.06E+00	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.40E+00	3.68E-01	3.75E-01	1.16E+00	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	9.90E-01	2.51E-01	2.57E-01	4.09E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	8.68E-02	1.16E-01	1.16E-01	1.53E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-2.40E-02	4.70E-02	4.71E-02	1.62E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	-1.38E-02	1.08E-01	1.08E-01	1.59E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.73E+01	2.71E+00	2.85E+00	2.37E+00	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	-3.80E+00	6.81E+00	6.81E+00	1.69E+01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.76E+00	3.07E-01	3.20E-01	4.03E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.30E+00	2.52E-01	2.61E-01	4.29E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	3.59E+00	1.71E+00	1.72E+00	2.78E+00	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.15E+00	3.02E-01	3.07E-01	5.74E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	8.76E-01	4.61E-01	4.63E-01	7.07E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	5.43E-01	3.04E-01	3.06E-01	4.48E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	1.12E-01	1.18E-01	1.18E-01	2.53E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	2.89E-02	9.29E-02	9.29E-02	2.07E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	5.23E-02	1.55E-01	1.55E-01	2.40E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	4.59E+00	2.95E+00	2.96E+00	4.52E+00	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	7.33E+00	1.30E+01	1.30E+01	2.52E+01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	5.96E-01	4.14E-01	4.16E-01	5.26E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	4.78E-01	3.43E-01	3.44E-01	5.94E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	4.28E+00	2.75E+00	2.75E+00	4.57E+00	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	2.86E-01	4.39E-01	4.39E-01	7.45E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	2.31E+00	8.08E-01	8.17E-01	1.39E+00	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.86E+00	6.09E-01	6.16E-01	4.28E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-1.80E-01	2.64E-01	2.64E-01	3.51E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-5.72E-01	3.30E-01	3.31E-01	3.61E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	4.70E-01	3.27E-01	3.28E-01	5.20E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.73E+01	6.80E+00	6.94E+00	8.22E+00	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	9.55E+00	2.69E+01	2.69E+01	4.60E+01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	2.50E+00	5.06E-01	5.22E-01	6.49E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.29E+00	4.67E-01	4.72E-01	8.04E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	4.18E+00	3.50E+00	3.51E+00	5.01E+00	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.73E+00	6.11E-01	6.17E-01	1.10E+00	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.80E+00	6.13E-01	6.20E-01	9.62E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	9.99E-01	4.38E-01	4.41E-01	7.18E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	8.00E-02	1.61E-01	1.61E-01	2.16E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	1.96E-03	1.02E-01	1.02E-01	3.18E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	-3.42E-02	1.92E-01	1.92E-01	2.89E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.17E+01	4.33E+00	4.47E+00	3.25E+00	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	-1.34E+01	2.02E+01	2.02E+01	2.89E+01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.69E+00	5.87E-01	5.94E-01	8.80E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.83E+00	4.30E-01	4.40E-01	7.74E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	7.46E-01	2.08E+00	2.08E+00	3.16E+00	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	6.44E-01	3.49E-01	3.50E-01	5.89E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	2.52E+00	1.77E+00	1.78E+00	3.58E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.00E+00	1.13E+00	1.13E+00	1.94E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	4.39E-01	6.17E-01	6.17E-01	1.05E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	-4.14E-01	6.46E-01	6.46E-01	8.45E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	4.36E-02	7.07E-01	7.07E-01	1.08E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.07E+01	5.71E+00	5.74E+00	7.12E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	4.01E+01	5.03E+01	5.03E+01	9.61E+01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.71E+00	9.25E-01	9.29E-01	2.52E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.09E+00	1.06E+00	1.06E+00	1.86E+00	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	1.81E+01	8.93E+00	8.98E+00	1.53E+01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.18E+00	1.70E+00	1.70E+00	2.78E+00	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.62E+00	4.56E-01	4.64E-01	9.06E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.04E+00	2.93E-01	2.98E-01	4.16E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	7.80E-02	1.42E-01	1.42E-01	2.21E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	4.28E-02	8.16E-02	8.16E-02	1.94E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.83E-01	1.22E-01	1.23E-01	2.20E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.85E+01	3.34E+00	3.47E+00	2.81E+00	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	1.30E+00	6.91E+00	6.91E+00	2.47E+01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.77E+00	7.48E-01	7.54E-01	4.56E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.19E+00	4.47E-01	4.51E-01	9.33E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	3.78E+00	2.38E+00	2.39E+00	5.10E+00	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.24E+00	3.41E-01	3.47E-01	5.04E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.58E+00	6.63E-01	6.68E-01	1.57E+00	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.58E+00	3.48E-01	3.57E-01	2.77E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	6.38E-02	2.07E-01	2.07E-01	3.10E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	1.14E-04	7.29E-02	7.29E-02	3.32E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	1.01E-01	1.96E-01	1.96E-01	3.22E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.04E+01	3.82E+00	3.96E+00	1.21E+00	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	2.09E+00	2.03E+01	2.03E+01	3.26E+01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	2.22E+00	4.55E-01	4.69E-01	4.55E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.43E+00	4.15E-01	4.21E-01	7.07E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.92E+00	1.98E+00	1.99E+00	3.26E+00	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	6.28E-01	3.89E-01	3.90E-01	7.99E-01	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Actinium-228	EPA 901.1 Modified	2.02E+00	5.78E-01	5.87E-01	1.05E+00	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.16E+00	3.98E-01	4.03E-01	6.16E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Cobalt-60	EPA 901.1 Modified	-1.49E-01	1.94E-01	1.94E-01	2.71E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Cesium-134	EPA 901.1 Modified	4.58E-02	1.05E-01	1.05E-01	2.89E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Cesium-137	EPA 901.1 Modified	-1.80E-01	1.93E-01	1.93E-01	2.71E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Potassium-40	EPA 901.1 Modified	2.00E+01	3.86E+00	3.99E+00	2.47E+00	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	-2.31E+00	1.83E+01	1.83E+01	3.00E+01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Lead-212	EPA 901.1 Modified	1.49E+00	2.98E-01	3.07E-01	6.31E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Lead-214	EPA 901.1 Modified	1.08E+00	3.97E-01	4.01E-01	8.11E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.89E+00	2.47E+00	2.47E+00	3.52E+00	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/22/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.19E+00	4.79E-01	4.83E-01	5.54E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Actinium-228	EPA 901.1 Modified	-1.05E-01	2.95E-01	2.95E-01	4.55E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Bismuth-214	EPA 901.1 Modified	4.85E-02	8.15E-02	8.15E-02	3.95E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Cobalt-60	EPA 901.1 Modified	6.96E-02	1.05E-01	1.05E-01	1.46E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Cesium-134	EPA 901.1 Modified	3.80E-02	4.81E-02	4.81E-02	1.55E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Cesium-137	EPA 901.1 Modified	-2.23E-02	1.06E-01	1.06E-01	1.42E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.61E+00	1.13E+00	1.13E+00	1.65E+00	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	-4.32E-01	9.32E+00	9.32E+00	1.58E+01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Lead-212	EPA 901.1 Modified	8.39E-03	1.66E-01	1.66E-01	2.51E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Lead-214	EPA 901.1 Modified	2.14E-01	2.28E-01	2.28E-01	3.58E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Thorium-234	EPA 901.1 Modified	2.13E+00	1.55E+00	1.55E+00	2.58E+00	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/23/2022	22-08063	Thallium-208	EPA 901.1 Modified	2.16E-01	1.76E-01	1.76E-01	3.80E-01	pCi/g

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			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Actinium-228	EPA 901.1 Modified	1.50E+00	6.91E-01	6.95E-01	1.31E+00	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Bismuth-214	EPA 901.1 Modified	1.11E+00	3.77E-01	3.82E-01	1.99E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Cobalt-60	EPA 901.1 Modified	3.29E-02	1.66E-01	1.66E-01	2.60E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Cesium-134	EPA 901.1 Modified	-1.55E-02	4.28E-02	4.28E-02	2.60E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Cesium-137	EPA 901.1 Modified	3.14E-01	1.58E-01	1.59E-01	2.39E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Potassium-40	EPA 901.1 Modified	1.74E+01	3.21E+00	3.33E+00	1.98E+00	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Protactinium-234m	EPA 901.1 Modified	1.55E+00	1.51E+01	1.51E+01	2.42E+01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Lead-212	EPA 901.1 Modified	1.60E+00	3.83E-01	3.92E-01	4.70E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Lead-214	EPA 901.1 Modified	1.46E+00	3.87E-01	3.94E-01	1.21E+00	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Thorium-234	EPA 901.1 Modified	1.67E+00	1.98E+00	1.98E+00	3.36E+00	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/23/2022	22-08063	Thallium-208	EPA 901.1 Modified	1.00E+00	3.34E-01	3.38E-01	2.46E-01	pCi/g
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	2.01E+01	7.42E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.68E+01	8.21E-01	2.34E+00	6.37E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	7.23E-02	3.21E-01	3.21E-01	6.79E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	8.54E-01	3.39E-01	3.57E-01	6.29E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	7.10E-01	3.69E-01	3.80E-01	7.11E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.04E+00	3.45E-01	3.70E-01	6.29E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	2.76E+00	3.70E-01	5.17E-01	5.18E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	3.04E+00	4.38E-01	5.91E-01	6.38E-01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.89E+00	3.62E-01	4.39E-01	5.80E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	7.58E-01	3.62E-01	3.76E-01	6.96E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.99E+00	3.32E-01	4.22E-01	4.97E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.53E+00	2.95E-01	3.57E-01	4.46E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	2.93E+00	4.54E-01	5.95E-01	7.03E-01	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	3.43E+00	5.23E-01	6.89E-01	7.70E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	5.00E+00	5.12E-01	8.30E-01	6.87E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.69E+00	3.39E-01	4.05E-01	5.52E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.44E+00	3.29E-01	3.79E-01	5.41E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.32E+00	3.25E-01	3.68E-01	5.62E-01	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	3.69E+00	4.91E-01	6.88E-01	6.83E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	1.76E+00	3.59E-01	4.26E-01	5.85E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/21/2022	22-08063	Lead-210	EML Pb-01 Modified	4.02E+00	4.71E-01	7.06E-01	6.32E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	7.23E-02	3.21E-01	3.21E-01	6.79E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	8.54E-01	3.39E-01	3.57E-01	6.29E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	7.10E-01	3.69E-01	3.80E-01	7.11E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.04E+00	3.45E-01	3.70E-01	6.29E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	2.76E+00	3.70E-01	5.17E-01	5.18E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	3.04E+00	4.38E-01	5.91E-01	6.38E-01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.89E+00	3.62E-01	4.39E-01	5.80E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	7.58E-01	3.62E-01	3.76E-01	6.96E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.99E+00	3.32E-01	4.22E-01	4.97E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.53E+00	2.95E-01	3.57E-01	4.46E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	2.93E+00	4.54E-01	5.95E-01	7.03E-01	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	3.43E+00	5.23E-01	6.89E-01	7.70E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	5.00E+00	5.12E-01	8.30E-01	6.87E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.69E+00	3.39E-01	4.05E-01	5.52E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.44E+00	3.29E-01	3.79E-01	5.41E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.32E+00	3.25E-01	3.68E-01	5.62E-01	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	3.69E+00	4.91E-01	6.88E-01	6.83E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	1.76E+00	3.59E-01	4.26E-01	5.85E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/21/2022	22-08063	Polonium-210	EML Pb-01 Modified	4.02E+00	4.71E-01	7.06E-01	6.32E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	1.01E+01	4.64E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	9.51E+00	1.29E+00	2.39E+00	3.17E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	-1.53E-02	9.21E-02	9.22E-02	2.90E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	7.58E-01	3.82E-01	4.14E-01	2.81E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.98E-01	3.44E-01	3.67E-01	2.11E-01	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.80E-01	3.78E-01	3.97E-01	4.25E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.12E-01	3.37E-01	3.54E-01	3.23E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	7.95E-01	3.84E-01	4.19E-01	2.59E-01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	2.66E-01	2.09E-01	2.16E-01	1.91E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	6.10E-01	3.58E-01	3.80E-01	3.01E-01	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	1.89E-01	1.61E-01	1.66E-01	1.59E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	1.97E-01	2.11E-01	2.15E-01	2.84E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	2.86E-01	2.60E-01	2.67E-01	3.03E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	9.54E-01	8.25E-01	8.49E-01	9.53E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	8.99E-01	3.83E-01	4.28E-01	1.98E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	4.43E-01	2.52E-01	2.69E-01	2.15E-01	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.75E-01	3.47E-01	3.68E-01	3.21E-01	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.10E-01	2.93E-01	3.12E-01	1.80E-01	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/19/2022	22-08063	Radium-226	EPA 903.0 Modified	5.60E-01	3.82E-01	4.00E-01	3.98E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	9.17E+00	4.68E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.02E+01	1.51E+00	2.75E+00	1.18E+00	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	5.75E-01	4.73E-01	4.91E-01	9.48E-01	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	9.37E-01	4.70E-01	5.15E-01	9.02E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.34E+00	5.31E-01	6.12E-01	1.00E+00	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.56E+00	5.16E-01	6.24E-01	9.13E-01	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	5.78E-01	5.12E-01	5.28E-01	1.03E+00	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	4.58E-01	4.78E-01	4.90E-01	9.72E-01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	2.89E-01	3.23E-01	3.30E-01	6.58E-01	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.02E+00	5.39E-01	5.87E-01	1.03E+00	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.04E-01	4.14E-01	4.15E-01	8.73E-01	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.41E-01	5.27E-01	5.28E-01	1.11E+00	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.25E+00	4.78E-01	5.55E-01	8.84E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	8.01E-01	1.44E+00	1.45E+00	2.99E+00	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	3.98E-01	3.33E-01	3.45E-01	6.67E-01	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	8.11E-02	6.65E-01	6.65E-01	1.41E+00	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	1.43E+00	5.67E-01	6.53E-01	1.05E+00	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	7.42E-01	5.74E-01	5.98E-01	1.14E+00	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/22/2022	22-08063	Radium-228	EPA 904.0	3.75E-01	7.36E-01	7.41E-01	1.53E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.99E-02	5.53E-02	5.58E-02	5.18E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.85E-02	6.73E-02	6.77E-02	8.80E-02	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.28E-02	5.49E-02	5.53E-02	5.76E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	0.00E+00	3.60E-02	3.60E-02	7.79E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	4.73E-02	6.16E-02	6.19E-02	8.50E-02	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.54E-02	6.36E-02	6.40E-02	8.33E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	4.49E-02	4.67E-02	4.70E-02	4.89E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	9.81E-02	7.84E-02	7.93E-02	8.21E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.28E-02	5.85E-02	5.88E-02	7.91E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	1.01E-02	3.09E-02	3.10E-02	7.33E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	1.20E-02	2.88E-02	2.88E-02	6.02E-02	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	8.89E-02	9.73E-02	9.79E-02	1.16E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	-9.65E-03	2.94E-02	2.94E-02	8.00E-02	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	-2.54E-04	2.69E-02	2.69E-02	7.99E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	2.09E-02	3.56E-02	3.57E-02	6.03E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	2.45E-02	4.18E-02	4.19E-02	7.07E-02	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	5.80E-02	5.56E-02	5.60E-02	5.95E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	3.73E-02	4.53E-02	4.56E-02	5.50E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/1/2022	22-08063	Thorium-227	EPA 907.0 Modified	6.87E-02	6.70E-02	6.75E-02	8.24E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	3.78E+00	1.36E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	3.14E+00	7.02E-01	7.62E-01	1.01E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	1.17E-01	7.74E-02	7.81E-02	5.79E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	9.96E-01	3.12E-01	3.26E-01	1.05E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	7.70E-01	2.38E-01	2.49E-01	7.71E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	6.61E-01	2.11E-01	2.20E-01	7.26E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	8.27E-01	2.86E-01	2.97E-01	1.37E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	6.41E-01	2.29E-01	2.37E-01	1.04E-01	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	7.53E-02	6.17E-02	6.21E-02	6.09E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	6.68E-01	2.18E-01	2.27E-01	8.13E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	2.65E-01	1.26E-01	1.28E-01	7.37E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	1.21E+00	3.44E-01	3.63E-01	9.56E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	7.83E-01	2.47E-01	2.58E-01	5.96E-02	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	4.61E-01	2.28E-01	2.32E-01	1.44E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	4.52E-01	1.75E-01	1.80E-01	8.41E-02	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	7.80E-01	2.32E-01	2.44E-01	7.52E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	8.81E-01	2.52E-01	2.66E-01	6.55E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	1.04E+00	3.06E-01	3.21E-01	8.25E-02	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	5.74E-02	5.50E-02	5.53E-02	5.89E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	8.00E-01	2.39E-01	2.50E-01	7.36E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/1/2022	22-08063	Thorium-228	EPA 907.0 Modified	1.07E+00	2.95E-01	3.12E-01	7.68E-02	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	5.48E+00	1.48E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	4.38E+00	9.22E-01	1.07E+00	9.58E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.48E-02	6.88E-02	6.98E-02	5.06E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.02E-01	2.92E-01	3.13E-01	1.24E-01	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	7.49E-01	2.32E-01	2.50E-01	6.43E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	7.94E-01	2.35E-01	2.55E-01	6.06E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	8.44E-01	2.87E-01	3.05E-01	1.19E-01	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	6.50E-01	2.29E-01	2.43E-01	9.75E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	6.28E-02	5.62E-02	5.67E-02	6.00E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	8.41E-01	2.50E-01	2.71E-01	5.59E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	3.71E-01	1.50E-01	1.56E-01	5.37E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.51E-01	2.91E-01	3.14E-01	1.02E-01	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	1.15E+00	3.19E-01	3.50E-01	8.87E-02	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	6.91E-01	2.84E-01	2.97E-01	1.42E-01	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	5.00E-01	1.85E-01	1.95E-01	8.29E-02	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.19E-01	2.57E-01	2.81E-01	6.98E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	1.19E+00	3.08E-01	3.42E-01	5.14E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.97E-01	2.95E-01	3.20E-01	8.63E-02	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	1.33E-01	8.49E-02	8.65E-02	7.27E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	9.08E-01	2.57E-01	2.81E-01	6.15E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/1/2022	22-08063	Thorium-230	EPA 907.0 Modified	8.49E-01	2.53E-01	2.74E-01	7.56E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	3.78E+00	1.36E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	3.13E+00	6.99E-01	7.51E-01	9.56E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	2.21E-02	3.39E-02	3.40E-02	5.05E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	8.27E-01	2.73E-01	2.83E-01	7.80E-02	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	8.55E-01	2.53E-01	2.64E-01	6.42E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	8.56E-01	2.47E-01	2.58E-01	6.05E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	6.67E-01	2.45E-01	2.52E-01	9.09E-02	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	4.87E-01	1.91E-01	1.96E-01	8.11E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	8.74E-02	6.50E-02	6.55E-02	5.46E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	1.07E+00	2.94E-01	3.08E-01	8.01E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	2.80E-01	1.27E-01	1.30E-01	5.36E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	1.03E+00	3.06E-01	3.20E-01	8.42E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	9.27E-01	2.75E-01	2.87E-01	8.42E-02	pCi/g
22-08063-13	TRG	STL 2022-040D.2	08/16/22 10:15	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	3.27E-01	1.84E-01	1.86E-01	9.87E-02	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	4.30E-01	1.69E-01	1.73E-01	8.27E-02	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	6.83E-01	2.12E-01	2.20E-01	6.96E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	9.07E-01	2.56E-01	2.68E-01	5.13E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	1.08E+00	3.11E-01	3.26E-01	9.07E-02	pCi/g
22-08063-18	TRG	STL 2022-045D	08/16/22 12:10	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	8.48E-02	6.84E-02	6.88E-02	7.26E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	7.04E-01	2.18E-01	2.27E-01	5.35E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	9/1/2022	22-08063	Thorium-232	EPA 907.0 Modified	9.99E-01	2.81E-01	2.94E-01	6.40E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	8.16E+00	2.94E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	7.44E+00	9.23E-01	1.06E+00	7.97E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	1.17E-01	7.76E-02	7.80E-02	6.49E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	5.23E-01	1.63E-01	1.68E-01	6.81E-02	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	6.71E-01	1.68E-01	1.75E-01	4.13E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	5.39E-01	1.62E-01	1.66E-01	7.42E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	6.03E-01	1.76E-01	1.81E-01	5.05E-02	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	7.23E-01	1.91E-01	1.97E-01	4.88E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	2.83E-01	1.09E-01	1.11E-01	6.01E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	4.08E-01	1.40E-01	1.43E-01	6.03E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	3.68E-01	1.31E-01	1.34E-01	6.68E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	8.21E-01	1.81E-01	1.90E-01	5.35E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	6.06E-01	1.81E-01	1.86E-01	9.04E-02	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	6.65E-01	2.90E-01	2.94E-01	1.55E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	4.73E-01	1.49E-01	1.53E-01	6.31E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	6.61E-01	1.87E-01	1.93E-01	8.30E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	5.19E-01	1.77E-01	1.81E-01	8.05E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	4.95E-01	1.56E-01	1.59E-01	7.25E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/31/2022	22-08063	Uranium-234	EPA 908.0 Modified	5.45E-01	1.80E-01	1.85E-01	9.81E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	4.53E-01	1.83E-01	1.86E-01	1.10E-01	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	5.58E-02	6.04E-02	6.05E-02	7.29E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	1.49E-02	4.13E-02	4.13E-02	8.93E-02	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	9.76E-02	7.21E-02	7.25E-02	7.31E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	5.32E-02	5.49E-02	5.50E-02	5.80E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	8.96E-02	7.78E-02	7.81E-02	8.95E-02	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	4.33E-02	5.67E-02	5.68E-02	8.65E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	8.18E-03	2.50E-02	2.50E-02	5.92E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	1.09E-01	7.95E-02	7.99E-02	6.78E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	2.75E-02	4.67E-02	4.67E-02	8.24E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	6.42E-02	5.32E-02	5.34E-02	4.59E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	7.33E-02	6.70E-02	6.72E-02	6.33E-02	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	-6.20E-03	7.25E-02	7.25E-02	1.52E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	8.28E-02	7.19E-02	7.21E-02	8.27E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	2.96E-02	5.22E-02	5.22E-02	9.40E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	8.21E-02	7.80E-02	7.82E-02	8.42E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	2.11E-02	4.02E-02	4.03E-02	7.45E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/31/2022	22-08063	Uranium-235	EPA 908.0 Modified	3.95E-02	5.90E-02	5.91E-02	9.60E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	22-08063				
			Boston Chemical Data					Purchase Order:	STL 2022				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
22-08063-01	LCS	KNOWN	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	7.90E+00	2.84E-01			pCi/g
22-08063-01	LCS	SPIKE	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	7.63E+00	9.40E-01	1.09E+00	5.89E-02	pCi/g
22-08063-02	MBL	BLANK	08/17/22 00:00	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	3.70E-02	4.85E-02	4.85E-02	7.40E-02	pCi/g
22-08063-03	DUP	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.49E-01	1.82E-01	1.88E-01	5.03E-02	pCi/g
22-08063-04	DO	STL 2022-031S	08/15/22 14:25	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.99E-01	1.72E-01	1.79E-01	4.12E-02	pCi/g
22-08063-05	TRG	STL 2022-032S	08/15/22 14:30	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	5.94E-01	1.68E-01	1.74E-01	4.69E-02	pCi/g
22-08063-06	TRG	STL 2022-033S	08/16/22 08:15	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.04E-01	1.77E-01	1.82E-01	7.24E-02	pCi/g
22-08063-07	TRG	STL 2022-034S	08/16/22 08:30	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	5.41E-01	1.64E-01	1.68E-01	6.58E-02	pCi/g
22-08063-08	TRG	STL 2022-035D	08/16/22 09:10	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	1.70E-01	8.46E-02	8.54E-02	6.01E-02	pCi/g
22-08063-09	TRG	STL 2022-036S	08/16/22 09:20	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	7.12E-01	1.89E-01	1.96E-01	6.88E-02	pCi/g
22-08063-10	TRG	STL 2022-037D	08/16/22 09:45	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	3.56E-01	1.29E-01	1.31E-01	6.66E-02	pCi/g
22-08063-11	TRG	STL 2022-038S	08/16/22 09:50	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	7.21E-01	1.68E-01	1.76E-01	5.34E-02	pCi/g
22-08063-12	TRG	STL 2022-039S	08/16/22 10:00	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.87E-01	1.92E-01	1.98E-01	7.36E-02	pCi/g
22-08063-14	TRG	STL 2022-041S	08/16/22 10:45	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	3.44E-01	2.05E-01	2.06E-01	1.41E-01	pCi/g
22-08063-15	TRG	STL 2022-042S	08/16/22 11:20	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.79E-01	1.80E-01	1.87E-01	4.66E-02	pCi/g
22-08063-16	TRG	STL 2022-043S	08/16/22 11:35	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	7.10E-01	1.93E-01	1.99E-01	5.04E-02	pCi/g
22-08063-17	TRG	STL 2022-044S	08/16/22 12:00	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	6.01E-01	1.91E-01	1.96E-01	8.53E-02	pCi/g
22-08063-19	TRG	STL 2022-046S	08/16/22 12:20	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	5.28E-01	1.61E-01	1.65E-01	7.23E-02	pCi/g
22-08063-20	TRG	STL 2022-047S	08/16/22 12:45	8/17/2022	8/31/2022	22-08063	Uranium-238	EPA 908.0 Modified	4.77E-01	1.65E-01	1.69E-01	6.58E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.05E+01	7.60E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.41E+01	9.87E-01	3.30E+00	7.29E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	1.37E-01	3.88E-01	3.88E-01	8.14E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	3.04E-01	3.69E-01	3.71E-01	7.55E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	4.36E-01	3.58E-01	3.62E-01	7.17E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.23E+00	3.51E-01	4.56E-01	5.08E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.15E+00	3.71E-01	4.66E-01	5.65E-01	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	6.23E+00	5.20E-01	9.66E-01	5.82E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	1.65E+00	4.05E-01	4.59E-01	7.00E-01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	8.63E-01	3.26E-01	3.45E-01	5.96E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	3.43E+00	4.22E-01	6.15E-01	5.87E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.11E+00	3.92E-01	4.79E-01	6.26E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	1.81E+00	3.20E-01	3.98E-01	4.67E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.84E+00	4.07E-01	5.51E-01	5.69E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	4.75E+00	4.46E-01	7.64E-01	5.17E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	6.41E+00	5.26E-01	9.89E-01	5.76E-01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	1.20E+00	3.65E-01	3.97E-01	6.49E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	3.42E+00	4.43E-01	6.29E-01	6.35E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	9.22E-01	3.67E-01	3.86E-01	6.90E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	2.33E+00	4.12E-01	5.12E-01	6.50E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/9/2018	18-09101	Lead-210	EML Pb-01 Modified	9.21E-01	3.67E-01	3.86E-01	6.88E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	2.39E-02	5.49E-02	5.50E-02	1.07E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	8.53E-02	8.48E-02	8.54E-02	1.18E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	4.87E-02	6.04E-02	6.07E-02	9.17E-02	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	7.87E-02	8.11E-02	8.17E-02	1.08E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	2.92E-01	1.43E-01	1.47E-01	7.47E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	1.44E-01	1.19E-01	1.20E-01	1.30E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	1.84E-01	9.98E-02	1.02E-01	6.01E-02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	9.45E-02	7.97E-02	8.05E-02	8.43E-02	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	5.94E-02	6.83E-02	6.87E-02	8.94E-02	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	3.56E-02	5.34E-02	5.36E-02	8.66E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	1.30E-01	9.42E-02	9.56E-02	1.02E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	5.36E-02	5.56E-02	5.60E-02	7.00E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	1.55E-01	1.30E-01	1.32E-01	1.67E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	1.52E-01	1.02E-01	1.03E-01	7.54E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	2.63E-02	4.04E-02	4.05E-02	6.01E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	2.00E-01	1.22E-01	1.24E-01	9.84E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	2.25E-01	1.42E-01	1.45E-01	1.12E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	9.10E-02	7.64E-02	7.72E-02	8.80E-02	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/8/2018	18-09101	Thorium-227	EPA 907.0 Modified	7.07E-02	6.25E-02	6.31E-02	7.77E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	4.94E+00	1.78E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	5.83E+00	8.65E-01	1.02E+00	8.96E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	3.44E-02	5.28E-02	5.29E-02	8.93E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	-1.80E-02	4.59E-02	4.60E-02	1.33E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	7.44E-02	8.14E-02	8.17E-02	1.23E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	2.46E-01	1.40E-01	1.42E-01	1.23E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.37E+00	3.70E-01	3.92E-01	8.15E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.67E-01	1.26E-01	1.27E-01	1.23E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	8.03E-01	2.33E-01	2.45E-01	7.04E-02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	2.18E-02	5.27E-02	5.27E-02	1.06E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.34E+00	3.83E-01	4.04E-01	1.24E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.39E-01	1.08E-01	1.09E-01	1.33E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	8.78E-01	2.62E-01	2.74E-01	9.84E-02	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	6.76E-02	6.05E-02	6.08E-02	6.46E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.13E+00	3.64E-01	3.80E-01	1.73E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	8.17E-01	2.64E-01	2.75E-01	9.38E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	2.83E-02	5.01E-02	5.02E-02	9.00E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.10E+00	3.27E-01	3.43E-01	8.56E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	1.28E+00	4.00E-01	4.18E-01	1.54E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	9.26E-01	2.64E-01	2.78E-01	8.74E-02	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/8/2018	18-09101	Thorium-228	EPA 907.0 Modified	3.54E-02	5.90E-02	5.91E-02	1.04E-01	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	5.42E+00	1.46E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	6.53E+00	9.49E-01	1.25E+00	7.69E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.39E-01	9.21E-02	9.37E-02	8.94E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.29E-01	9.23E-02	9.37E-02	9.05E-02	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.54E-01	9.60E-02	9.79E-02	8.59E-02	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	2.15E-01	1.28E-01	1.31E-01	1.13E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.61E+00	4.12E-01	4.58E-01	7.29E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	5.24E-01	2.28E-01	2.37E-01	1.21E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.08E+00	2.82E-01	3.12E-01	7.34E-02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.82E-01	1.12E-01	1.14E-01	1.04E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.31E+00	3.75E-01	4.08E-01	1.36E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	3.14E-01	1.48E-01	1.53E-01	9.43E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.27E+00	3.35E-01	3.70E-01	1.26E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.41E-01	8.52E-02	8.70E-02	5.78E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	2.10E+00	5.53E-01	6.11E-01	1.28E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.43E+00	3.82E-01	4.21E-01	9.21E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	2.45E-01	1.24E-01	1.27E-01	7.36E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	3.13E+00	7.02E-01	8.02E-01	9.04E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	2.26E+00	5.97E-01	6.59E-01	1.28E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	1.04E+00	2.84E-01	3.11E-01	8.94E-02	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/8/2018	18-09101	Thorium-230	EPA 907.0 Modified	9.21E-02	6.83E-02	6.92E-02	7.31E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	4.94E+00	1.78E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	5.85E+00	8.67E-01	1.01E+00	6.87E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	6.12E-03	3.84E-02	3.84E-02	9.25E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	-1.25E-02	3.23E-02	3.24E-02	1.09E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.05E-02	3.79E-02	3.79E-02	8.57E-02	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.14E-01	9.14E-02	9.20E-02	9.53E-02	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.42E+00	3.77E-01	3.97E-01	8.58E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.54E-01	1.16E-01	1.16E-01	9.61E-02	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.12E+00	2.88E-01	3.04E-01	7.32E-02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	7.25E-02	7.19E-02	7.21E-02	9.17E-02	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	9.94E-01	3.10E-01	3.22E-01	1.04E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.27E-01	9.08E-02	9.15E-02	7.84E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	9.27E-01	2.69E-01	2.81E-01	9.97E-02	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	4.21E-02	4.83E-02	4.84E-02	6.34E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.29E+00	3.89E-01	4.05E-01	1.05E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	9.27E-01	2.84E-01	2.96E-01	8.66E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	6.05E-02	6.29E-02	6.31E-02	7.90E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.10E+00	3.26E-01	3.40E-01	1.01E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.13E+00	3.62E-01	3.75E-01	1.09E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	9.95E-01	2.74E-01	2.88E-01	6.83E-02	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/8/2018	18-09101	Thorium-232	EPA 907.0 Modified	1.52E-01	8.43E-02	8.54E-02	6.00E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	8.02E+00	2.89E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	7.88E+00	1.07E+00	1.21E+00	1.13E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	7.20E-02	5.97E-02	6.00E-02	5.15E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	7.19E-02	7.11E-02	7.13E-02	8.40E-02	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	4.74E-02	9.90E-02	9.90E-02	1.88E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	3.01E-01	1.24E-01	1.26E-01	9.04E-02	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	8.76E-01	2.29E-01	2.37E-01	8.90E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	4.70E-01	1.54E-01	1.58E-01	7.19E-02	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	9.90E-01	2.41E-01	2.51E-01	1.14E-01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	1.05E-01	8.67E-02	8.70E-02	1.06E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	6.30E-01	1.96E-01	2.02E-01	8.55E-02	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	4.36E-01	1.50E-01	1.53E-01	5.22E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	7.69E-01	2.45E-01	2.51E-01	1.66E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	1.86E-01	1.05E-01	1.05E-01	8.89E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	1.03E+00	2.65E-01	2.75E-01	1.22E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	1.01E+00	2.54E-01	2.64E-01	8.10E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	2.78E-01	1.31E-01	1.32E-01	8.77E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	8.32E-01	2.31E-01	2.39E-01	7.73E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	1.62E+00	4.82E-01	4.95E-01	1.82E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	6.82E-01	3.07E-01	3.11E-01	2.06E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/5/2018	18-09101	Uranium-234	EPA 908.0 Modified	2.50E-01	1.15E-01	1.16E-01	8.68E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	5.48E-01	2.23E-01	2.27E-01	9.21E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	4.57E-02	5.98E-02	5.99E-02	9.13E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	1.64E-02	3.93E-02	3.93E-02	8.24E-02	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	-1.52E-02	6.10E-02	6.10E-02	1.57E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	4.27E-02	5.74E-02	5.75E-02	9.02E-02	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	2.11E-01	1.20E-01	1.20E-01	7.97E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	6.91E-02	6.56E-02	6.58E-02	7.09E-02	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	5.71E-02	7.05E-02	7.06E-02	1.07E-01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	8.72E-03	3.64E-02	3.64E-02	9.34E-02	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	1.82E-01	1.16E-01	1.17E-01	9.93E-02	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	2.83E-02	4.32E-02	4.32E-02	6.44E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	9.27E-02	9.17E-02	9.20E-02	1.08E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	1.10E-02	3.36E-02	3.36E-02	7.96E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	5.73E-02	8.29E-02	8.30E-02	1.39E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	8.86E-02	8.55E-02	8.57E-02	1.06E-01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	4.80E-02	6.20E-02	6.21E-02	8.63E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	4.52E-02	6.27E-02	6.28E-02	9.53E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	2.63E-01	2.10E-01	2.11E-01	2.25E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	1.16E-01	1.52E-01	1.52E-01	2.31E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/5/2018	18-09101	Uranium-235	EPA 908.0 Modified	2.98E-02	5.26E-02	5.27E-02	9.49E-02	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	7.77E+00	2.80E-01			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	9.13E+00	1.20E+00	1.36E+00	1.07E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	5.94E-02	5.43E-02	5.44E-02	5.13E-02	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	-8.13E-03	3.26E-02	3.26E-02	8.36E-02	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.04E-01	1.07E-01	1.08E-01	1.36E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	2.42E-01	1.17E-01	1.18E-01	1.14E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	9.19E-01	2.34E-01	2.43E-01	7.59E-02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	2.83E-01	1.17E-01	1.19E-01	5.72E-02	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.06E+00	2.47E-01	2.58E-01	8.99E-02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.96E-01	1.07E-01	1.08E-01	6.87E-02	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	7.58E-01	2.16E-01	2.23E-01	8.02E-02	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	3.47E-01	1.33E-01	1.35E-01	5.20E-02	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	9.61E-01	2.68E-01	2.77E-01	1.14E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	6.26E-02	5.95E-02	5.97E-02	6.43E-02	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	8.79E-01	2.41E-01	2.49E-01	1.05E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.04E+00	2.57E-01	2.68E-01	6.84E-02	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	3.03E-01	1.34E-01	1.35E-01	6.08E-02	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	7.86E-01	2.25E-01	2.32E-01	1.01E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.80E+00	5.11E-01	5.27E-01	1.59E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.02E+00	3.73E-01	3.80E-01	1.49E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/5/2018	18-09101	Uranium-238	EPA 908.0 Modified	1.36E-01	8.39E-02	8.44E-02	7.28E-02	pCi/g
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.31E+02	5.10E+00			pCi/g
18-09101-01	LCS	KNOWN	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cesium-137	EPA 901.1 Modified	8.26E+01	3.39E+00			pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.41E+02	9.12E+00	1.17E+01	1.36E+00	pCi/g
18-09101-01	LCS	SPIKE	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cesium-137	EPA 901.1 Modified	8.97E+01	9.84E+00	1.09E+01	1.73E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Actinium-228	EPA 901.1 Modified	8.98E-04	8.42E-02	8.42E-02	1.34E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Bismuth-214	EPA 901.1 Modified	3.90E-02	4.56E-02	4.56E-02	7.56E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cobalt-60	EPA 901.1 Modified	2.45E-02	2.93E-02	2.93E-02	6.08E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.31E-03	2.41E-02	2.41E-02	4.10E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Potassium-40	EPA 901.1 Modified	2.72E-01	2.93E-01	2.93E-01	6.77E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-1.44E+00	2.74E+00	2.74E+00	3.96E+00	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Lead-212	EPA 901.1 Modified	3.53E-02	3.64E-02	3.65E-02	6.13E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Lead-214	EPA 901.1 Modified	6.76E-03	4.20E-02	4.20E-02	6.73E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Radium-226	EPA 901.1 Modified	3.90E-02	4.56E-02	4.56E-02	7.56E-02	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Radium-228	EPA 901.1 Modified	8.98E-04	8.42E-02	8.42E-02	1.34E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Thorium-234	EPA 901.1 Modified	5.17E-01	2.42E-01	2.43E-01	4.28E-01	pCi/g
18-09101-02	MBL	BLANK	09/24/18 00:00	9/21/2018	10/15/2018	18-09101	Thallium-208	EPA 901.1 Modified	2.00E-02	7.29E-02	7.29E-02	1.14E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	-2.36E-01	3.74E-01	3.74E-01	5.15E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.70E-01	1.82E-01	1.83E-01	3.31E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-2.29E-02	1.05E-01	1.05E-01	1.19E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.26E-01	1.01E-01	1.01E-01	1.92E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	4.32E+00	1.52E+00	1.54E+00	1.46E+00	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-4.09E-01	9.38E+00	9.38E+00	1.48E+01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	2.21E-01	1.98E-01	1.98E-01	3.23E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	3.37E-01	2.68E-01	2.69E-01	4.32E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.70E-01	1.82E-01	1.83E-01	3.31E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	-2.36E-01	3.74E-01	3.74E-01	5.15E-01	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	1.68E+00	1.80E+00	1.80E+00	2.64E+00	pCi/g
18-09101-03	DUP	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.47E-01	2.25E-01	2.26E-01	4.21E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	2.52E-01	2.94E-01	2.94E-01	5.71E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.40E-01	1.98E-01	1.98E-01	3.39E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-1.43E-02	5.42E-02	5.42E-02	1.60E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.28E-01	1.00E-01	1.00E-01	1.92E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	2.98E+00	1.48E+00	1.49E+00	1.93E+00	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	9.40E+00	7.46E+00	7.47E+00	1.69E+01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	9.14E-03	1.83E-01	1.83E-01	2.45E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	-3.00E-02	2.46E-01	2.46E-01	3.11E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.40E-01	1.98E-01	1.98E-01	3.39E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	2.52E-01	2.94E-01	2.94E-01	5.71E-01	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	1.23E+00	1.68E+00	1.68E+00	2.45E+00	pCi/g
18-09101-04	DO	WLL2018-0229D	09/18/18 16:20	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	3.02E-01	2.40E-01	2.40E-01	3.36E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	2.99E-02	7.63E-01	7.63E-01	1.29E+00	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	5.64E-01	4.69E-01	4.70E-01	8.06E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.81E-01	1.68E-01	1.68E-01	3.57E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	2.41E-01	2.11E-01	2.11E-01	3.36E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	9.73E+00	3.88E+00	3.92E+00	4.83E+00	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	1.63E+01	1.67E+01	1.67E+01	2.65E+01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	7.00E-01	3.78E-01	3.80E-01	5.95E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	7.66E-01	4.49E-01	4.51E-01	6.96E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	5.64E-01	4.69E-01	4.70E-01	8.06E-01	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	2.99E-02	7.63E-01	7.63E-01	1.29E+00	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.13E+00	2.35E+00	2.36E+00	3.77E+00	pCi/g
18-09101-05	TRG	WLL2018-0231D	09/18/18 17:05	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	8.16E-01	6.76E-01	6.78E-01	1.08E+00	pCi/g

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	9.15E-01	4.47E-01	4.50E-01	7.93E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.34E+00	3.06E-01	3.13E-01	2.20E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	2.02E-03	1.42E-01	1.42E-01	2.31E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.93E-01	1.09E-01	1.09E-01	2.28E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.97E+01	3.48E+00	3.62E+00	2.48E+00	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-9.65E+00	1.48E+01	1.48E+01	2.17E+01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.49E+00	2.58E-01	2.70E-01	4.60E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.34E+00	2.68E-01	2.77E-01	4.43E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.34E+00	3.06E-01	3.13E-01	2.20E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	9.15E-01	4.47E-01	4.50E-01	7.93E-01	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.03E+00	2.13E+00	2.13E+00	3.56E+00	pCi/g
18-09101-06	TRG	WLL2018-0232S	09/18/18 17:10	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.17E+00	3.65E-01	3.70E-01	6.05E-01	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.58E+00	4.44E+00	4.44E+00	8.07E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	4.51E-01	3.73E+00	3.73E+00	5.73E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-8.97E-01	1.47E+00	1.47E+00	1.92E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	2.20E+00	1.09E+00	1.09E+00	1.17E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.01E+01	1.07E+01	1.07E+01	1.66E+01	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	1.20E+02	1.60E+02	1.60E+02	3.05E+02	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	7.75E-01	2.75E+00	2.75E+00	4.29E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	6.75E+00	5.44E+00	5.45E+00	8.87E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	4.51E-01	3.73E+00	3.73E+00	5.73E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.58E+00	4.44E+00	4.44E+00	8.07E+00	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	7.08E+01	3.03E+01	3.05E+01	5.66E+01	pCi/g
18-09101-07	TRG	WLL2018-0233D	09/18/18 17:55	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	2.80E+00	4.32E+00	4.32E+00	7.47E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.70E+00	3.81E-01	3.91E-01	5.48E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.27E+00	2.58E-01	2.66E-01	3.30E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.07E-02	1.25E-01	1.25E-01	1.66E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	2.82E-01	1.62E-01	1.63E-01	2.54E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.71E+01	2.68E+00	2.82E+00	1.25E+00	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	3.70E+00	9.69E+00	9.70E+00	1.66E+01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.07E+00	1.87E-01	1.95E-01	3.25E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.34E+00	2.62E-01	2.71E-01	3.98E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.27E+00	2.58E-01	2.66E-01	3.30E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.70E+00	3.81E-01	3.91E-01	5.48E-01	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.63E+00	1.53E+00	1.53E+00	2.39E+00	pCi/g
18-09101-08	TRG	WLL2018-0234S	09/18/18 18:05	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.21E+00	2.94E-01	3.00E-01	5.09E-01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	4.34E+00	5.28E+00	5.28E+00	1.06E+01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	3.84E+00	2.70E+00	2.71E+00	4.06E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	9.70E-01	1.46E+00	1.46E+00	2.57E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	2.42E-01	1.39E+00	1.39E+00	2.85E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.91E+01	1.72E+01	1.72E+01	3.82E+01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-2.98E+01	1.75E+02	1.75E+02	2.90E+02	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	-3.22E-01	1.63E+00	1.63E+00	2.43E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	9.97E+00	3.74E+00	3.77E+00	5.22E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	3.84E+00	2.70E+00	2.71E+00	4.06E+00	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	4.34E+00	5.28E+00	5.28E+00	1.06E+01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.66E+01	1.36E+01	1.37E+01	2.39E+01	pCi/g
18-09101-09	TRG	WLL2018-0235D	09/18/18 18:45	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	-9.70E-01	4.46E+00	4.46E+00	6.16E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.66E+00	4.23E-01	4.31E-01	7.30E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.72E+00	2.91E-01	3.05E-01	3.62E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.42E-02	1.10E-01	1.10E-01	1.30E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	6.71E-01	1.57E-01	1.61E-01	2.44E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	2.75E+01	3.61E+00	3.87E+00	3.63E+00	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	6.55E+00	1.01E+01	1.01E+01	1.72E+01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.72E+00	2.72E-01	2.86E-01	4.57E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.93E+00	2.87E-01	3.03E-01	4.92E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.72E+00	2.91E-01	3.05E-01	3.62E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.66E+00	4.23E-01	4.31E-01	7.30E-01	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	3.89E+00	2.20E+00	2.20E+00	3.72E+00	pCi/g
18-09101-10	TRG	WLL2018-0236S	09/18/18 18:50	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.84E+00	3.70E-01	3.82E-01	4.97E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	9.54E-01	1.67E+00	1.67E+00	2.88E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	5.67E-01	8.48E-01	8.48E-01	1.48E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-9.68E-02	3.84E-01	3.84E-01	5.46E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	4.45E-01	2.56E-01	2.57E-01	2.94E-01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	6.97E+00	4.94E+00	4.96E+00	7.09E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-1.40E+01	4.96E+01	4.96E+01	7.07E+01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	6.22E-01	7.08E-01	7.09E-01	1.06E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	3.35E-01	9.98E-01	9.98E-01	1.37E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	5.67E-01	8.48E-01	8.48E-01	1.48E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	9.54E-01	1.67E+00	1.67E+00	2.88E+00	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	7.39E+00	7.29E+00	7.30E+00	1.21E+01	pCi/g
18-09101-11	TRG	WLL2018-0238D	09/19/18 11:20	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.59E+00	9.16E-01	9.19E-01	1.90E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.76E+00	5.06E-01	5.14E-01	8.54E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	2.06E+00	4.41E-01	4.54E-01	6.51E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	6.65E-02	1.66E-01	1.66E-01	2.74E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.37E-01	1.56E-01	1.56E-01	2.60E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	3.16E+01	6.70E+00	6.89E+00	4.35E+00	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	5.37E+00	1.60E+01	1.60E+01	2.71E+01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.91E+00	3.20E-01	3.35E-01	5.04E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.95E+00	3.68E-01	3.82E-01	5.83E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	2.06E+00	4.41E-01	4.54E-01	6.51E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.76E+00	5.06E-01	5.14E-01	8.54E-01	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.60E+00	1.80E+00	1.81E+00	2.75E+00	pCi/g
18-09101-12	TRG	WLL2018-0239S	09/19/18 11:30	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	2.07E+00	5.97E-01	6.06E-01	8.23E-01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	9.81E-01	2.52E+00	2.52E+00	4.52E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.20E+00	1.06E+00	1.06E+00	3.77E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-2.97E-01	7.68E-01	7.68E-01	1.14E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.55E-01	6.11E-01	6.11E-01	1.01E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.22E+00	8.76E+00	8.76E+00	1.51E+01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	4.01E+00	5.73E+01	5.73E+01	1.05E+02	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	2.43E-01	8.08E-01	8.08E-01	1.25E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.73E-01	1.10E+00	1.10E+00	1.75E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.20E+00	1.06E+00	1.06E+00	3.77E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	9.81E-01	2.52E+00	2.52E+00	4.52E+00	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	1.14E+01	6.70E+00	6.72E+00	1.15E+01	pCi/g
18-09101-13	TRG	WLL2018-0240D	09/19/18 11:50	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.79E+00	2.27E+00	2.27E+00	3.83E+00	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.82E+00	4.92E-01	5.00E-01	1.02E+00	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.51E+00	3.41E-01	3.49E-01	5.93E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	1.07E-03	1.16E-01	1.16E-01	1.71E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	6.28E-01	2.10E-01	2.12E-01	2.96E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	2.97E+01	4.08E+00	4.36E+00	2.75E+00	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	1.34E+01	1.10E+01	2.01E+01	2.01E+01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	2.03E+00	2.93E-01	3.11E-01	5.00E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	2.13E+00	3.31E-01	3.49E-01	4.90E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.51E+00	3.41E-01	3.49E-01	5.93E-01	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.82E+00	4.92E-01	5.00E-01	1.02E+00	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	5.25E+00	3.57E+00	3.58E+00	5.86E+00	pCi/g
18-09101-14	TRG	WLL2018-0241S	09/19/18 12:00	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.42E+00	3.20E-01	3.28E-01	5.25E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.56E+00	3.87E-01	3.95E-01	6.78E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.98E+00	2.91E-01	3.08E-01	4.71E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	7.04E-02	1.16E-01	1.16E-01	1.60E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	6.17E-01	2.22E-01	2.24E-01	3.21E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	3.26E+01	4.45E+00	4.76E+00	1.50E+00	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	8.50E+00	1.12E+01	1.12E+01	1.97E+01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	2.56E+00	4.62E-01	4.80E-01	5.27E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	2.06E+00	3.53E-01	3.68E-01	5.02E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.98E+00	2.91E-01	3.08E-01	4.71E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.56E+00	3.87E-01	3.95E-01	6.78E-01	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	4.27E+00	2.58E+00	2.59E+00	4.16E+00	pCi/g
18-09101-15	TRG	WLL2018-0242S	09/19/18 12:10	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	9.26E-01	2.57E-01	2.61E-01	3.86E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.53E+00	2.01E+00	2.01E+00	3.39E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.06E+00	1.01E+00	1.01E+00	1.63E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	2.18E-01	6.17E-01	6.17E-01	7.98E-01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	3.06E-01	4.85E-01	4.85E-01	8.99E-01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	6.63E+00	5.94E+00	5.95E+00	1.31E+01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	-5.03E+00	5.51E+01	5.51E+01	9.12E+01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	6.35E-01	6.51E-01	6.52E-01	1.12E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	-1.45E-01	1.02E+00	1.02E+00	1.49E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.06E+00	1.01E+00	1.01E+00	1.63E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.53E+00	2.01E+00	2.01E+00	3.39E+00	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	8.61E+00	6.60E+00	6.61E+00	1.09E+01	pCi/g
18-09101-16	TRG	WLL2018-0245D	09/19/18 13:50	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.82E-01	1.39E+00	1.39E+00	2.14E+00	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.18E+00	3.88E-01	3.93E-01	9.17E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.93E+00	3.30E-01	3.44E-01	3.97E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	5.59E-02	1.15E-01	1.15E-01	1.75E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.80E-02	4.78E-02	4.78E-02	1.93E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.71E+01	2.85E+00	2.98E+00	1.77E+00	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	1.32E+01	1.26E+01	1.26E+01	2.05E+01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.92E+00	3.23E-01	3.38E-01	4.18E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.70E+00	2.76E-01	2.89E-01	3.51E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.93E+00	3.30E-01	3.44E-01	3.97E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.18E+00	3.88E-01	3.93E-01	9.17E-01	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	8.39E-01	1.65E+00	1.65E+00	2.46E+00	pCi/g
18-09101-17	TRG	WLL2018-0244S	09/19/18 13:00	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.27E+00	3.19E-01	3.25E-01	2.39E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.09E+00	2.63E-01	2.68E-01	4.66E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Bismuth-212	EPA 901.1 Modified	6.55E-01	4.81E-01	4.83E-01	7.70E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	2.03E+00	2.23E-01	2.46E-01	1.78E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	7.88E-02	5.30E-02	5.32E-02	7.99E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	1.15E-02	4.00E-02	4.00E-02	8.09E-02	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.00E+01	1.61E+00	1.69E+00	1.16E+00	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	2.12E+00	5.77E+00	5.78E+00	9.40E+00	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Lead-212	EPA 901.1 Modified	1.79E+00	2.73E-01	2.88E-01	2.68E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	2.23E+00	2.38E-01	2.64E-01	2.44E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	2.03E+00	2.23E-01	2.46E-01	1.78E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.09E+00	2.63E-01	2.68E-01	4.66E-01	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	3.25E+00	1.69E+00	1.70E+00	2.71E+00	pCi/g
18-09101-18	TRG	WLL2018-0243S	09/19/18 12:55	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	8.25E-01	1.47E-01	1.53E-01	1.84E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	9.51E-01	4.58E-01	4.60E-01	8.52E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Bismuth-212	EPA 901.1 Modified	6.58E-01	6.75E-01	6.76E-01	1.20E+00	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.47E+00	2.64E-01	2.75E-01	3.86E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-3.84E-02	1.15E-01	1.15E-01	1.78E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	6.53E-02	1.07E-01	1.07E-01	1.80E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	2.44E+01	5.12E+00	5.27E+00	3.56E+00	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	1.55E+00	9.35E+00	9.35E+00	1.58E+01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	1.63E+00	2.81E-01	2.93E-01	4.10E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.47E+00	2.64E-01	2.75E-01	3.86E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	9.51E-01	4.58E-01	4.60E-01	8.52E-01	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	1.99E+00	1.26E+00	1.27E+00	1.93E+00	pCi/g
18-09101-19	TRG	WLL2018-0246S	09/19/18 14:00	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	1.05E+00	3.23E-01	3.28E-01	6.00E-01	pCi/g

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

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Eberline Analytical Final Report of Analysis			Report To:					Work Order Details:					
			Marco Kaltofen					SDG:	18-09101				
			Boston Chemical Data					Project:	Bridgeton				
			2 Summer Street, Suite 14					Analysis Category:	ENVIRONMENTAL				
			Natick, MA 01760					Sample Matrix:	SO				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Actinium-228	EPA 901.1 Modified	1.98E-01	9.32E-01	9.32E-01	1.64E+00	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Bismuth-212	EPA 901.1 Modified	1.36E-01	2.15E+00	2.15E+00	3.54E+00	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Bismuth-214	EPA 901.1 Modified	1.02E+00	5.42E-01	5.45E-01	6.63E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Cobalt-60	EPA 901.1 Modified	-1.33E-01	3.12E-01	3.12E-01	4.63E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Cesium-137	EPA 901.1 Modified	2.86E-02	3.23E-01	3.23E-01	4.86E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Potassium-40	EPA 901.1 Modified	1.56E+01	5.57E+00	5.62E+00	6.26E+00	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Protactinium-234m	EPA 901.1 Modified	3.18E+00	1.47E+01	1.47E+01	5.98E+01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Lead-214	EPA 901.1 Modified	8.17E-01	4.99E-01	5.01E-01	7.59E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Radium-226	EPA 901.1 Modified	1.02E+00	5.42E-01	5.45E-01	6.63E-01	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Radium-228	EPA 901.1 Modified	1.98E-01	9.32E-01	9.32E-01	1.64E+00	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Thorium-234	EPA 901.1 Modified	2.46E+00	3.44E+00	3.44E+00	5.38E+00	pCi/g
18-09101-20	TRG	WLL2018-0247D	09/19/18 14:35	9/21/2018	10/16/2018	18-09101	Thallium-208	EPA 901.1 Modified	3.00E-01	8.33E-01	8.33E-01	1.29E+00	pCi/g

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Boston Chemical Data Group
ATTN: Marco Kaltofen
Boston Chemical Data Group
2 Summer Street, Suite 14
Natick MA 01760

Date Received: 12-DEC-18
Report Date: 31-JAN-19 15:27 (MT)
Version: FINAL

Client Phone: 508-589-1661

Certificate of Analysis

Lab Work Order #: L2209511
Project P.O. #: NOT SUBMITTED
Job Reference: BRIDGETON
C of C Numbers:
Legal Site Desc:


Lynne Wrona, M.Sc.
Account Manager

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ADDRESS: 1435 Norjohn Court, Unit 1, Burlington, ON, L7L 0E6 Canada | Phone: +1 905 331 3111 | Fax: +1 905 331 4567
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2209511-1	WLL2018-0268D							
Sampled By: Client on 20-SEP-18 @ 11:20								
Matrix: Dust								
Miscellaneous Parameters								
Mercury (Hg)		0.173		0.0050	ug/g	02-JAN-19	02-JAN-19	R4422133
Metals in Soil by CRC ICPMS								
Cadmium (Cd)		0.63		0.50	ug/g	02-JAN-19	02-JAN-19	R4423107
Chromium (Cr)		14.3		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Copper (Cu)		72.8		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Lead (Pb)		29.6		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Nickel (Ni)		16.5		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
L2209511-2	WLL2018-0269S							
Sampled By: Client on 20-SEP-18 @ 11:25								
Matrix: Soil								
Miscellaneous Parameters								
Mercury (Hg)		0.154		0.0050	ug/g	02-JAN-19	02-JAN-19	R4422133
Metals in Soil by CRC ICPMS								
Cadmium (Cd)		2.18		0.50	ug/g	02-JAN-19	02-JAN-19	R4423107
Chromium (Cr)		29.7		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Copper (Cu)		143		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Lead (Pb)		267		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Nickel (Ni)		21.9		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
L2209511-3	WLL2018-0233D							
Sampled By: Client on 18-SEP-18 @ 17:55								
Matrix: Dust								
Miscellaneous Parameters								
Mercury (Hg)		3.16	DLHC	0.050	ug/g	02-JAN-19	02-JAN-19	R4422133
Metals in Soil by CRC ICPMS								
Cadmium (Cd)		14.3		0.50	ug/g	02-JAN-19	02-JAN-19	R4423107
Chromium (Cr)		44.4		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Copper (Cu)		243		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Lead (Pb)		466		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107
Nickel (Ni)		21.5		1.0	ug/g	02-JAN-19	02-JAN-19	R4423107

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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HG-200.2-CVAA-WT Soil Mercury in Soil by CVAAS EPA 200.2/1631E (mod)

Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAAS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-200.2-CCMS-WT Soil Metals in Soil by CRC ICPMS EPA 200.2/6020A (mod)

Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.

Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H₂S) may be excluded if lost during sampling, storage, or digestion.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

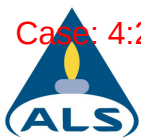
D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Environmental

Quality Control Report

Workorder: L2209511

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Client: Boston Chemical Data Group
 Boston Chemical Data Group 2 Summer Street, Suite 14
 Natick MA 01760

Contact: Marco Kaltofen

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-200.2-CVAA-WT		Soil						
Batch	R4422133							
WG2962621-2 CRM		WT-CANMET-TILL1						
Mercury (Hg)			92.3		%		70-130	02-JAN-19
WG2962621-3 LCS		STD						
Mercury (Hg)			99.0		%		80-120	02-JAN-19
WG2962621-1 MB								
Mercury (Hg)			<0.0050		mg/kg		0.005	02-JAN-19
MET-200.2-CCMS-WT		Soil						
Batch	R4423107							
WG2962621-2 CRM		WT-CANMET-TILL1						
Cadmium (Cd)			96.6		%		70-130	02-JAN-19
Chromium (Cr)			96.4		%		70-130	02-JAN-19
Copper (Cu)			95.9		%		70-130	02-JAN-19
Lead (Pb)			98.2		%		70-130	02-JAN-19
Nickel (Ni)			94.0		%		70-130	02-JAN-19
WG2962621-4 LCS		1+2						
Cadmium (Cd)			96.5		%		80-120	02-JAN-19
Chromium (Cr)			94.2		%		80-120	02-JAN-19
Copper (Cu)			90.4		%		80-120	02-JAN-19
Lead (Pb)			96.9		%		80-120	02-JAN-19
Nickel (Ni)			90.6		%		80-120	02-JAN-19
WG2962621-1 MB								
Cadmium (Cd)			<0.020		mg/kg		0.02	02-JAN-19
Chromium (Cr)			<0.50		mg/kg		0.5	02-JAN-19
Copper (Cu)			<0.50		mg/kg		0.5	02-JAN-19
Lead (Pb)			<0.50		mg/kg		0.5	02-JAN-19
Nickel (Ni)			<0.50		mg/kg		0.5	02-JAN-19

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

№ 3569



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